APPENDIX B

45-DAY SUMMARY REPORT FOR 2011 FOCUSED QUINO CHECKERSPOT BUTTERFLY SURVEYS



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December 2, 2011

Ms. Erin McCarthy Recovery Permit Coordinator Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011

RE: 2011 LanWest Solar Farm Project Quino Checkerspot Butterfly 45-Day Summary Report, Boulevard, California

Dear Ms. McCarthy:

In compliance with the Special Terms and Conditions for Endangered and Threatened Wildlife Species Permit TE-820658-4.6, on behalf of LanWest Solar Farm, LLC, AECOM submits this letter report summarizing the results of focused surveys conducted in 2011 for the federally listed endangered Quino checkerspot butterfly (*Euphydryas editha quino*; Quino) for the LanWest Solar Farm Project (Proposed Project or "Project") in Boulevard, California. AECOM currently holds an Endangered and Threatened Species Permit issued by the U.S. Fish and Wildlife Service (USFWS) under Section 10(a)(1)(A) of the Federal Endangered Species Act. This permit authorizes AECOM to conduct presence/absence surveys for Quino and other species.

Project Description

The Proposed Project is a concentrating photovoltaic (CPV) power plant with alternating current (AC) generating capacity of as much as 5.44 megawatts (MW) AC. The Project will be comprised of as many as 264 CPV trackers grouped into four building blocks with up to 66 trackers and one pair of 630 to 680-kilowatt (kW) inverters each. Each inverter pair is equipped with a small step-up transformer. The AC inverter capacity determines the nameplate capacity of each building block to be 1.26 to 1.36 MW AC; therefore, the total Project capacity is 5.04 to 5.44 MW AC. The Project will be constructed on relatively flat to gently sloping land currently used for grazing. The Project site is comprised of approximately 60 acres and is situated approximately 0.5 mile west of McCain Valley Road and is accessed via an access road to be constructed from McCain Valley Road. It is contiguous to the north side of Old Highway 80 and the south side of Interstate 8. The Project site lies within the unincorporated area of San Diego County just east of Boulevard, California (Figures 1 and 2). It will interconnect to SDG&E's local distribution system at the Boulevard Substation via a dedicated 12.47 kilovolt (kV) tie-line.

A total of approximately 60 acres comprises the Project site, and only one portion of the Project site was excluded from the Quino survey area due to overlap with another project's study area. This was a corridor (5.62 acres) parallel to and directly north of Old Highway 80. This corridor was not included in the Quino survey area, and therefore not surveyed by AECOM. Therefore, approximately 53.29 acres of potential Quino habitat comprised the Quino survey area (Figure 3). For the purpose of this report, only the habitat within the



Project site that was surveyed for Quino will be discussed and is known as the Quino survey area.

Site Description

The Quino survey area is located in a desert transition zone dominated by chaparral communities, subshrub communities, wildflower fields, oak woodlands, and riparian communities. Elevation on the Quino survey area ranges from approximately 3,300 to 3,370 feet above mean sea level, with gently sloping hillsides and shallow valleys. Rock outcrops and a few small hills are scattered throughout the Quino survey area. The Quino survey area is located on an active cattle ranch. The vegetation communities found within the Quino survey area are listed below. Vegetation was mapped during field surveys using large-plot aerial photographs at a scale of 1 inch = 200 feet. The Holland (1986) classification system for natural communities as modified by Oberbauer et al. (2008) was used for vegetation mapping. The vegetation communities are described below in order of abundance, starting with the most common community. Following the community name is the Holland (1986) classification number in parentheses (as updated by Oberbauer et al. 2008).

Semi-Desert Chaparral (37400)

Semi-desert chaparral is an open-canopy chaparral community dominated by widely spaced evergreen shrub species within a matrix of subshrubs and succulent desert transition species. This community is more open and is not quite as tall as other chaparral types, and is probably dormant in winter (due to cold temperatures) and in late summer and fall (due to drought) (Holland 1986). Dominant species are scrub oak (*Quercus xacutidens*), chamise (*Adenostoma fasciculatum*), holly-leaf cherry (*Prunus illicifolia*), interior flat-topped buckwheat (*Eriogonum fasciculatum* spp. *polifolium*), foothill buckwheat (*Eriogonum wrightii var. membranaceum*), and mountain mahogany (*Cercocarpus betuloides*). Common desert transition species include cholla cactus (*Cylindropuntia californica* var. *parkeri*), Mojave yucca (*Yucca schidigera*), ephedra (*Ephedra californica*), and desert apricot (*Prunus fremontii*).

Big Sagebrush Scrub (35210)

This community is composed of soft-woody shrubs approximately 6.5 feet tall and is dominated by big sagebrush (*Artemisia tridentata*) with several other associated subshrub and herbaceous species. Big sagebrush scrub can occur on a wide variety of soils and terrain, from rocky well-drained slopes to fine-textured valley soils with a high water table (Holland 1986).



Wildflower Field (42300)

This community is distributed from montane areas to foothills and valleys of the Californian Floristic Province below about 4,000 to 5,000 feet elevation in San Diego County. The distinguishing feature of wildflower fields are a dominance of native herbaceous species, often with conspicuous displays of annual wildflowers. Dominance varies from site to site and from year to year (Holland 1986). This community type does not apply to desert regions (too dry) or the north coast of California (too wet). Wildflower field is a sensitive habitat because of its unique character and rare occurrence.

Red Shank Chaparral (37300)

Red shank chaparral is similar to chamise chaparral but is generally taller (6.5 to 13 feet) and usually more open. Red shank (*Adenostoma sparsifolium*) is the dominant species and occupies greater than 50% of the vegetative cover. Chamise, scrub oak, and big sagebrush (*Artemisia tridentata*) often occur as co-dominant species. This community is generally restricted to granitic soils, often at higher elevations with greater precipitation and colder winters. Red shank chaparral occurs in Southern California and is commonly occurring on interior cismontane slopes (Holland 1986). Other associated species often include, Mohave yucca, California buckwheat, and foothill buckwheat.

Chamise Chaparral (37200)

Chamise chaparral is dominated by chamise and generally contains lower species diversity than other chaparral communities (Holland 1986). However, several other shrub, subshrub, and herbaceous species are present as co-dominant species on occasion, including scrub oak, interior flat-topped buckwheat, foothill buckwheat, cup-leaf ceanothus (*Ceanothus areagii*), and Mohave vucca.

Coast Live Oak Woodland (71160)

Coast live oak woodland varies from an open to dense tree community with interior coast live oak (*Quercus agrifolia* var. *oxyadenia*) as the dominant overstory species in the habitat onsite. The shrub understory of these communities may include foothill buckwheat (*Eriogonum wrightii* var. *membranaceum*) in the more open phase oak woodland, and black elderberry (*Sambucus nigra*) and hybrid scrub oak (*Quercus x acutidens*) in the dense phase (Holland 1986).

Nonnative Grassland (42200)

Nonnative grassland generally occurs on fine-textured loam or clay soils that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. It is characterized by a dense to sparse cover of annual grasses, often with native and nonnative annual forbs (Holland 1986). Typical grasses within the region are cheat grass



(Bromus tectorum), ripgut brome (Bromus diandrus), red brome (Bromus madritensis ssp. rubens), soft chess (Bromus hordeaceus), wild oats (Avena sp.), and rat-tail fescue (Vulpia myuros). Nonnative disturbance-related annuals such as stork's bill, fillaree (Erodium sp.), and short-pod mustard (Hirschfeldia incana) are common to this community. Although named as a nonnative community, this community often has significant biological value, since it typically supports native grassland species such as tarweeds (Deinandra spp.) and California goldfields (Lastheniagracilis), and provides foraging habitat for raptors and often supports other sensitive wildlife species.

Alkali Seep (45320)

Alkali seep as defined in Holland (1986) and Oberbauer et al. (2008) is a wetland vegetation type that supports halophytic plant species such as salt grass (*Distichlis spicata*), salt heliotrope (*Heliotropium curassavicum*), Mexican rush (*Juncus mexicanus*), and alkali sacaton (*Sporobolus airoides*) Within the Quino survey area, this community is consistently dominated by salt grass and salt heliotrope, with presence of the other halophytic species. This community extends throughout the gentle floodplain of Walker Creek, and is subject to extensive cattle and horse grazing.

Southern Willow Scrub (63320)

Southern willow scrub is a dense, broad-leaved, winter deciduous riparian thicket dominated by several species of willow (*Salix* sp.) in association with mulefat (*Baccharis salicifolia*). Associated species found within this community include mariposa rush (*Juncus dubious*), seep monkey flower (*Mimulus guttatus*), and hoary nettle (*Urtica dioica-holosericea*), among others. This is an early seral community that requires periodic flooding to prevent succession to riparian forest (Holland 1986).

Unvegetated Channel (64200)

This community consists of unvegetated washes that are dominated by sandy substrate and little to no vegetation (Holland 1986). These channels flood with sufficient frequency to exclude vegetation. However, low cover of flood-adapted herbaceous species can be present. Within the Quino survey area, Tecate tarplant (*Deinandra floribunda*), a California Native Plant Society (CNPS) List 1B rare plant species, was present in some areas of the unvegetated washes.

Background Information

Quino was added to the federal endangered species list by USFWS on January 16, 1997 (USFWS 1997). The species (*E. editha*) has a range extending from British Columbia and Alberta, Canada, south through Colorado and Utah, and west along the coast to northern Baja California. It is divided into at least 29 subspecies, each of which has its own range and biological and morphological characteristics. In California, there are at least 18 described



subspecies (Emmel 1998). Three other subspecies of *E. editha* are currently known to occur in Southern California. The Quino is the southwesternmost subspecies of *E. editha* (Mattoni et al. 1997).

Quino is known to occur in association with a variety of plant communities, soil types, and elevations (up to 5,000 feet). The plant communities include clay soil meadows, open grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodlands, and semi-desert scrub (Ballmer et al. 2001). The Quino is also associated with clay soils that possess cryptogamic crusts and vernal pools (USFWS 2002).

Quino is a medium-sized butterfly (approximately 0.8- to 1.1-inch wingspan) belonging to the family Nymphalidae. The adults are primarily orange-red with white and have black markings on the dorsal wing surface. They are active primarily in March and April. This active period may vary depending on weather conditions (Ballmer et al. 2001). The adult butterfly feeds on nectar, which it obtains from spring annuals such as popcorn flower (*Cryptantha* sp.), Layia (*Layia glandulosa*), goldenbush (*Ericameria* sp.), pincushion (*Chaenactis* sp.), fiddleneck (*Amsinckia intermedia*), chia (*Salvia columbariae*), and blue dicks (*Dichelostemma capitatum*), among others. It cannot use flowers that possess deep corolla tubes, such as monkeyflower (*Mimulus* sp.), or those that can be opened by bees, such as snapdragons (USFWS 2002). Adult males and virgin females sometimes "hilltop," or travel to elevated locations to find mates. While waiting for females to arrive, the males will often exhibit "territorial behavior" and will chase other butterflies that approach them. Frequently, the butterflies are observed in meadows or clearings where their host plants occur (Ballmer et al. 2001).

An adult female may lay 20 to 75 eggs per cluster and may produce up to 1,200 eggs in her lifetime of a couple of weeks. The eggs hatch in approximately 10 days under favorable weather conditions, and the young larvae will immediately begin to feed upon a host plant. The feeding larvae use the dot-seed plantain (*Plantago erecta*), Patagonia plantain (*Plantago patagonica*), white snapdragon (*Antirrhinum coulterianum*), and southern Chinese houses (*Collinsia concolor*) as their host plants (Pratt 2010). Dark-tipped bird's-beak (*Cordylanthus rigidus*) and purple owl's clover (*Castilleja exserta*) are considered secondary hosts (USFWS 2002). New evidence suggests that southern Chinese houses is a primary larval food plant for Quino in the 2,953- to 4,265-foot elevation range (Pratt 2010), which is within the range coincident with the Quino survey area.

After feeding and initial growth, the early instar larvae enter an obligatory aestival diapause (dormant stage), which may be broken after fall or winter rains (Murphy and White 1984; Osborne 1998). If adverse weather conditions occur, the emergent larva may reenter a diapause stage repeatedly, for up to 5 or 6 years, until favorable weather conditions permit sufficient growth of the host plant to allow the larva to complete its development. Quino is known to undergo population fluctuations, with extirpation of local populations and recolonization of new areas characteristic of metapopulation dynamics (Osborne 1998).



Quino was once common in Southern California. It ranged north into Ventura County, west to the Pacific Ocean, east to the desert edge, and south into northern Baja California. Currently, it is known to occur only in a few, probably isolated, colonies in southwestern Riverside County, San Diego County, and northern Baja California.

Reasons for the butterfly's reduction in population are not well understood. Habitat loss due to degradation and fragmentation caused by urban and rural development, agricultural conversion, off-road-vehicular use, the invasion of nonnative plants and insects, fire management practices, overcollecting, and adverse weather conditions have likely contributed to the species' decline (USFWS 1997).

USFWS recommends that focused Quino surveys be conducted a minimum of five times during the adult flight season by biologists possessing a recovery permit for this species, pursuant to Section 10(a)(1)(A) of the Endangered Species Act. The Quino flight season within a given area is determined by the activity of known Quino populations that are monitored annually by USFWS. The Project is located in eastern San Diego County, and the Jacumba reference site is the closest known population of Quino; therefore, surveys coincided with Quino activity at the Jacumba reference site. During the 2011 flight season, the first adult Quinos were observed flying on March 15, 2011, at the Jacumba reference site, which is approximately 4.2 miles to the southeast of the Quino survey area (USFWS 2011).

Survey Methodology

Habitat Assessment

In accordance with the *Quino Checkerspot Butterfly* (*Euphydryas editha quino*) *Survey Protocol Information* (USFWS 2002), a habitat assessment of the entire Quino survey area was conducted on March 25, 2011, prior to the first protocol-level survey by permitted biologists (Table 1). Protocol-level surveys of the Quino survey area were determined necessary due to the presence of suitable Quino habitat throughout the Quino survey area. The entire Quino survey area occurs within the USFWS Quino recommended survey area (USFWS 2005). Potential habitat surveyed for the Quino consisted of all habitat except for open water (cattle ponds) and developed areas. Results of habitat assessments did not reveal the presence of any excludable areas (per USFWS 202) and therefore all habitats were included in the Quino survey area (Figure 3). All closed-canopy chaparral, riparian forest, and oak woodland habitats in the Quino survey area were included because these areas were small and contained open patches with the potential to support Quino.



Table 1 Permitted Biologists Who Conducted Quino Habitat Assessments

AECOM Permitted Biologists:			
Erin Bergman			
Andrew Fisher			
Mike Couffer			
Subcontracted Permitted Biologists:			
Subcontracted Permitted Biologists:			
Subcontracted Permitted Biologists: Antonette Gutierrez			

Focused Adult Quino Surveys

The start date for focused adult Quino surveys was determined based on conditions at the Jacumba reference site monitored by USFWS (USFWS 2011). The Jacumba reference site population of Quino uses dotseed plantain as a host plant (USFWS 2011). This plant species, widespread on clay soils in western San Diego County, is restricted to basaltderived clay soils in the vicinity of Jacumba Mountain, and is not present in the Quino survey area. The Jacumba reference site is closer to the desert at a slightly lower elevation than the Quino survey area. Due to higher elevations, the presence of granitic soils, the lack of clay soils, and the absence of dotseed plantain in the Quino survey area, any Quino population existing on-site would be expected to exhibit ecology similar to other "high" elevation Quino populations in the vicinity, which are typically associated with southern Chinese houses, white snapdragon, and dark-tipped bird's beak host plants. Quino populations of higher elevations tend to fly slightly later in the season than those of slightly lower populations. Based on AECOM biologists' experience with Quino on the Campo Indian Reservation approximately 6 miles west of the Quino survey area and at a similar elevation (AECOM 2010), it is expected that any potential Quino population in the vicinity of the Quino survey area will have its flight season beginning 1 or 2 weeks later than the population at Jacumba.

The first adult Quino observed at the Jacumba reference site was detected on March 15, 2011 (USFWS 2011); however, due to out-of-protocol weather for most of March (mean daytime temperatures were predicted to be below protocol survey guideline temperatures), surveys were not initiated until March 30, 2011. Focused presence/absence Quino surveys within the Quino survey area occurred from March 30, 2011 to May 4, 2011. Surveys were conducted by permitted AECOM biologists Erin Bergman and Bonnie Hendricks under permit number TE-820658-4, and part-time-variable biologists with valid 10(a)(1)(A) permits. Table 2 provides a list of all biologists who conducted surveys and their permit numbers.



Table 2
Survey Personnel and Permit Numbers

Biologist	#TE Permit Number
Erin Bergman	820658-4
Michael Couffer	782703-8
Bonnie Hendricks	820658-4
Ken Osborne	837760-6

Surveys were conducted during optimal periods for detecting Quino when wind, temperature, and other weather conditions were most favorable. If weather conditions did not meet the USFWS protocol for Quino, biologists waited for the weather conditions to improve before proceeding with surveys. Surveys were terminated if sustained winds were more than 15 miles per hour. The survey routes of each permitted biologist were recorded and mapped electronically using Garmin Global Positioning System (GPS) units. Biologists walked meandering transects through all potentially suitable habitat, scanning the ground, surrounding bushes, and all nectar sources for Quino. Biologists documented any potential Quino host plant populations, all species of flowering plants (potential nectar sources), and all species of butterflies observed. Potential Quino host plants were mapped and recorded in increments of 1–10, 11–50, 51–100, 101–500, and 500+ individual plants (Figure 3).

The Quino survey area was surveyed initially for 5 weeks, which is the recommended minimum duration for focused Quino presence/absence surveys in the current USFWS species survey protocol (USFWS 2002). Surveys were extended an additional week within selected portions of the Quino survey area because potential Quino host plants (dark-tipped bird's beak) were present in these areas or nectar resources remained abundant. Although protocol was satisfied with the 5 weeks of survey, in the interest of survey rigor, AECOM biologists continued with a 6th week of survey within portions of the site considered to have the greatest (if any) potential to support Quino. Portions of the survey area were excluded for this additional survey effort based on the following factors: increased evidence of heavy cattle grazing, a lack of host plant populations, sparse nectaring resources. Therefore, approximately 38.12 acres within the Quino survey area were surveyed during survey week 6 (Figure 3).

According to USFWS guidelines, habitat with active/in-use grazing and a lack of native vegetation can be excluded from protocol-level surveys. Evidence of cattle grazing was present during weeks 1 through 5, but these areas were still surveyed for 5 weeks given the presence of native vegetation in spite of active grazing. Table 3 shows the survey week date, survey team, total number of survey days, and the number of permitted biologist days that surveys were conducted.



Table 3
Protocol Quino Survey Schedule

Survey Week	Date	Permitted Biologist Survey Team	# Calendar Days	# Person Days ^A
1	03/30/11	Ken Osborne	1	1
2	04/04/11	Mike Couffer	1	1
3	04/13/11 – 04/15/11	Erin Bergman, Mike Couffer	3	3
4	04/20/11	Mike Couffer	1	1
5	4/26/11 – 4/28/11	Ken Osborne, Mike Couffer	2	2
6	05/04/11	Bonnie Hendricks	1	1

A The number of person days varied depending on weather conditions; some person days reflected here are partial days. This number only includes permitted biologists.

Results

No Quino were detected during the habitat assessment or the focused adult Quino surveys within the Quino survey area. The five most abundant butterflies found within the Quino survey area in order of abundance were Behr's metalmark (*Apodemia mormo*), common buckeye (*Junonia coenia*), Acmon blue (*Icaria acmon*), sandhill skipper (*Polites sabuleti*), and desert pearly marble (*Euchloe hyantis*). A total of 46 different butterfly and various moth species were detected within the Quino survey area, with numbers varying across survey weeks. The total abundance of butterfly species varied across the six surveys, but was highest during survey weeks 3 through 6.

Generally, potential nectar sources increased in diversity and abundance during survey weeks 3 through 6. A summary of weekly butterfly and moth species observations is included in Appendix A. Survey-specific weather conditions and personnel are presented in Appendix B. Field data collected during protocol surveys is included in Appendix C. A list of potential nectaring sources and host plants detected during each survey week is presented in Appendix D. A list of vertebrate wildlife species detected during Quino surveys is presented in Appendix E.

The Quino survey area (within the Project site) was initially part of a larger survey area that was separated into three separate CPV projects (LanWest Solar Farm, LanEast Solar Farm, and Rugged Solar Farm) after the completion of habitat assessments and Quino surveys. LanEast Solar Farm is located adjacent to the Project site (on the eastern boundary of LanWest) and includes habitat on both the west and east side of McCain Valley Road immediately south of Interstate 8 and north of Old Highway 80. Rugged Solar Farm includes land north of Interstate 8 and on both sides of McCain Valley Road. All three project sites were surveyed at the same time for Quino (while the sites were considered one large project). Therefore, some of the appendices include combined data from the now three differentiated projects. Appendix A is identical for both LanWest and LanEast; Appendix B is identical for LanWest and LanEast; Appendix C is identical for LanWest and LanEast;



Appendix D is identical for all three project sites; and Appendix E is identical for LanWest and LanEast.

During spring 2011, rare plant surveys were ongoing concurrent with focused Quino surveys for the Project. Qualified botanists Bonnie Hendricks, Erin Bergman, Fred Sproul, Kyle Harper, Lance Woolley, Margaret Mulligan, John Messina, and Kyle Ince conducted rare plant surveys across 100% of the survey area. Botanists mapped all potential Quino larval host plants observed while completing rare plant surveys. All host plants that were detected within the survey area, including observations made by Quino surveyors during protocol surveys and by botanists during rare plant surveys within the same time frame as the Quino protocol surveys, are provided in Figure 3.

The only potential Quino host plant detected within the Quino survey area was dark-tip bird's beak. Two small populations of one to 10 plants each were found in the northwestern portion of the Quino survey area. These populations of dark-tip bird's beak were remnant desiccated plants from the previous year.

Discussion

No Quino were found within the Quino survey area. Although two small populations of darktip bird's beak were found in the Quino survey area (Figure 3), the low abundance and late emergence of this species and the absence of dotseed plantain, Coulter's snapdragon, and southern Chinese houses substantially diminish the potential of host resources to support a Quino population in the Quino survey area. Due to above-average rainfall during the 2010/2011 wet season, host plant population growth, as exhibited at several other locations in the general vicinity of the Quino survey area, was not limited by rainfall (NOAA 2011). Given the ample winter precipitation, abundant wildflowers, springtime butterflies and moths, well coordinated timing of the survey relative to activity of local Quino populations, and extensive experience of survey biologists, AECOM is confident that our negative survey results for Quino are valid on all portions of the Quino survey area surveyed for Quino.

If you have any questions or comments regarding this letter report, please contact me at (619) 233-1454.

Sincerely,

Andrew Fisher Wildlife Biologist

Attachments: Figure 1 – Regional Map

Figure 2 – Vicinity Map

Figure 3 – Quino Habitat Assessment and Larval Host Plants Map



Appendix A – Summary of Weekly Butterfly and Moth Species
Observations During Quino Surveys

Appendix B – Daily Weather Conditions During Quino Surveys Appendix C – Field Data Collected During Quino Surveys

Appendix D – Potential Nectaring Sources and Host Plants Detected During Quino Surveys

Appendix E – Vertebrate Wildlife Species Detected During Quino Surveys

Certification

Qualified biologists who conducted Quino checkerspot butterfly surveys within the Quino survey area for the proposed LanWest Solar Farm Project certify that the information in this survey report fully and accurately represents the work performed. Signatures of permitted biologists (as listed in Table 1) who conducted protocol surveys (March 30, 2011 through May 4, 2011) are included below. The results of focused surveys for listed species are typically considered valid for 1 year by the resource agencies.

Erin Bergman AECOM Biologist Mike Couffer AECOM Biologist

AECOM Biologist

Bonnie Hendricks

Ken Osborne AECOM Biologist



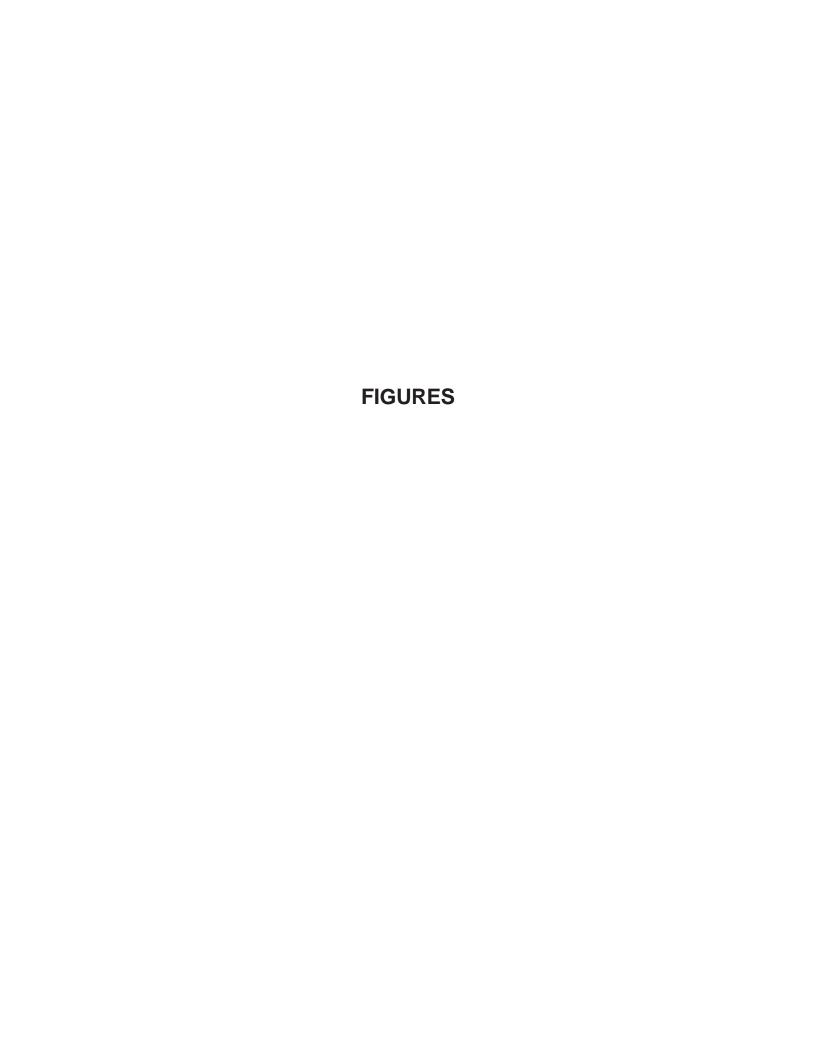
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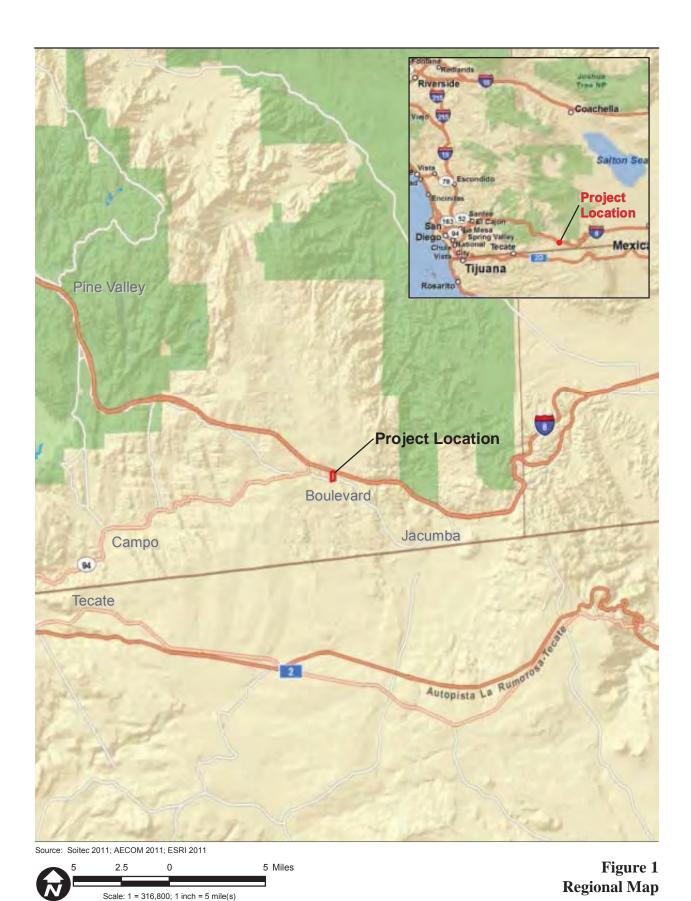
- AECOM. 2010. 45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly for the Campo Wind Energy Project.
- Ballmer, G. R, D. C. Hawks, K. H. Osborne, and G. F. Pratt. 2001. The Quino Checkerspot Butterfly (*Euphydryas editha quino*). Year 2000 Quino Workshop.
- Emmel, T. C. 1998. Systematics of Western North American Butterflies. Mariposa Press, Gainesville, Florida, 878 pp.
- Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency.
- Mattoni, R, G. F. Pratt, T. R Longcore, J. F. Emmel, and J. N. George. 1997. The Endangered Quino Checkerspot Butterfly, *Euphydryas editha quino* (Lepidoptera: Nymphalidae). *J. Res. Lepid*. 34:99–118.
- Murphy, D. D., and R. R. White. 1984. Rainfall, Resources, and Dispersal in Southern Populations of *Euphydryas Editha* (Lepidoptera: Nymphalidae). *Pan-Pac Entomol*. 60:350–354.
- National Oceanic and Atmospheric Administration (NOAA). 2011. National Weather Forecast Office, San Diego, California. Observed Weather Report for Campo. Available at http://www.nws.noaa.gov/climate/index.php?wfo=sgx.
- Oberbauer, T., M. Kelly, and J. Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California", Robert F. Holland, October 1986.
- Osborne, K. H. 1998. Microhabitat Conditions Associated with the Distribution of Post-Diapause Larvae of Euphydryas Editha Quino and its Host, *Plantago Erecta* (Chapter 4). In: A Description of Arthropod Community Structure in Southern Californian Coastal Sage Scrub (Chapter 4). Master's thesis, University of California, Riverside. California.
- Osborne, K. H. 2011. Email communication on April 4, 2011, regarding Jacumba reference site visit findings, posted on the USFWS Monitoring Information Website (http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/QuinoMonRef/Quino_Ref_Info.htm).
- Pratt, G. F. 2010. A New Larval Food Plant, *Collinsia concolor*, for the Endangered Quino Checkerspot, *Euphydryas editha quino*. *Journal of the Lepidopterists' Society* 64(1):36–37.



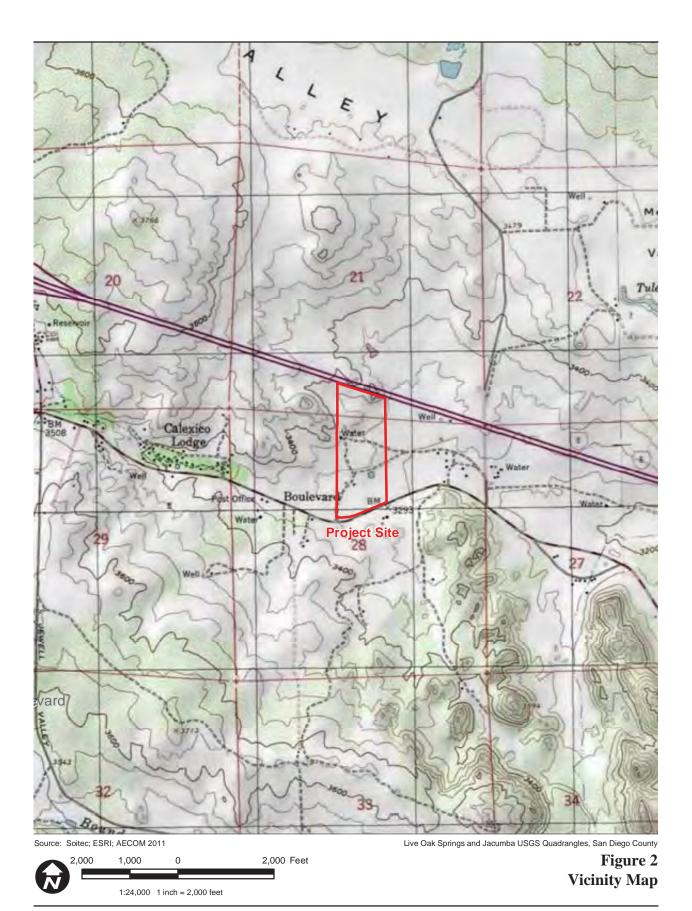
- U.S. Fish and Wildlife Service (USFWS). 1997. Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Laguna Mountains Skipper and Quino Checkerspot Butterfly. *Federal Register* 58:16742–16757.
- U.S. Fish and Wildlife Service (USFWS). 2002. Survey Protocol for the Endangered Quino Checkerspot Butterfly (*Euphydryas editha quino*) for the Year 2002 Field Season. February. 6pp. + appendices.
- U.S. Fish and Wildlife Service (USFWS). 2005. Year 2005 Quino Survey Areas. Available at http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/web-map20052.pdf.
- U.S. Fish and Wildlife Service (USFWS). 2011. Carlsbad Fish and Wildlife Office. Quino Checkerspot Butterfly 2011 Monitoring Information. Last updated April 6, 2011. Available at http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/QuinoMonRef/Quino_Ref_Info.htm#Table_1.

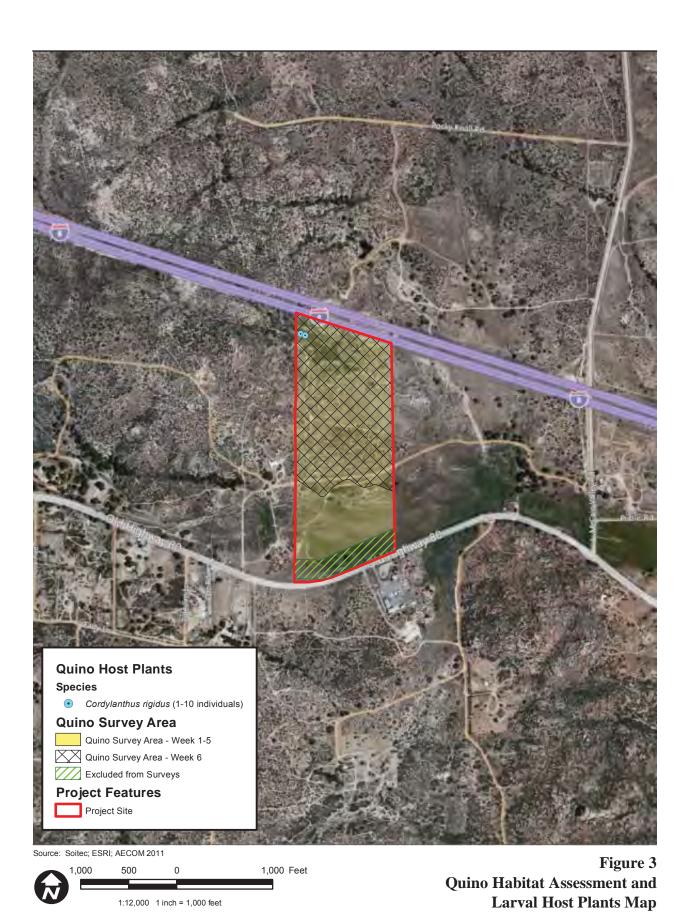
11280175 Quino 45-day Rpt LanWest Final





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APPENDIX A SUMMARY OF WEEKLY BUTTERFLY AND MOTH SPECIES OBSERVATIONS DURING QUINO SURVEYS

Appendix A Summary of Weekly Butterfly and Moth Species Observations During Quino Surveys^A

	Survey Week 1	Survey Week 2	Survey Week 3	Survey Week 4	Survey Week 5	Survey Week 6	TOTAL
Nymphalidae (Brushfooted Butterflies)							
Euphydryas chalcedona (Henne's checkerspot)	0	2	0	0	3	0	5
Chlosyne gabbii (Gabb's checkerspot)	0	0	0	0	1	0	1
Checkerspot sp.	0	0	0	1	0	0	1
Junonia coenia (common buckeye)	0	6	15	16	38	23	98
Vanessa annabella (west coast lady)	0	1	0	0	0	0	1
Vanessa atalanta (red admiral)	0	0	0	0	1	0	1
Vanessa cardui (painted lady)	3	1	0	0	1	0	5
Vanessa sp. (lady sp.)	0	2	2	2	0	0	6
Pieridae (Whites, Sulphurs)		l.	1	l.		L	
Pontia sisymbrii (spring white)	0	0	0	1	0	0	1
Pontia protodice (common white)	0	7	2	1	7	3	20
Anthocharis sara (Sara orangetip)	10	20	1	0	1	3	35
Euchloe hyantis (desert pearly marble)	19	11	10	0	1	0	41
Colias eurytheme (orange sulphur)	5	6	0	1	6	4	22
Colias harfordii (Harford's sulphur)	1	8	1	1	7	10	28
Colias philodice (clouded sulphur)	0	2	0	0	0	0	2
Nathalis iole (dainty sulphur)	3	4	0	0	1	0	8
Papilionidae (Swallowtails)			•				
Papilio eurymedon (pale swallowtail)	0	0	0	0	2	1	3
Riodiniade (Metalmarks)			•		•	•	
Apodemia mormo (Behr's metalmark)	151	189	211	137	338	25	1,051
Lycaenidae (Hairstreaks and Blues)							
Celastrina ladon (spring azure)	0	0	0	1	0	0	1
Brephidium exile (western pygmy blue)	0	4	0	0	1	0	5
Glaucopsyche lygdamus (southern blue/silvery blue)	0	0	0	0	2	0	2
Icaria acmon (acmon blue)	10	12	14	6	21	14	77
Philotes sonorensis (sonoran blue)	0	5	1	0	0	0	6
Everes amyntula (western-tailed blue)	1	2	0	0	1	0	4
Callophrys augustinus (brown elfin)	2	0	1	0	1	0	4
Callophrys perplexa (perplexing green hairstreak)	18	14	5	0	1	0	38
Hesperiidae (Skippers)							
Atalopedes campestris (sachem)	0	0	9	0	0	0	9
Erynnis funeralis (funereal duskywing)	0	1	0	0	1	0	2
Erynnis tristis (sad duskywing)	0	1	0	0	0	0	1
Erynnis propertius (propertius duskywing)	2	3	5	3	2	4	19
Erynnis brizo (sleepy duskywing)	1	1	0	0	0	0	2
Erynnis sp. (duskywing sp.)	0	1	0	0	0	0	1
Pyrgus communis (checkered skipper)	1	3	0	0	2	0	6
Heliopetes ericetorum (northern white skipper)	0	0	0	0	2	0	2
Hesperia juba (juba skipper)	0	3	2	17	1	0	23
Polites sabuleti (sandhill skipper)	0	7	2	20	35	5	69
Philosora catullus (common sootywing)	0	2	6	1	3	0	12

	Survey Week 1	Survey Week 2	Survey Week 3	Survey Week 4	Survey Week 5	Survey Week 6	TOTAL
Moths							
Autographa californica	1	0	0	0	0	0	1
Chrismania pictipennalis	5	0	0	0	0	0	5
Drasteria divergens	1	0	0	0	0	0	1
Drasteria edwardsii	8	0	0	0	0	0	8
Drasteria pallescens	1	0	0	0	0	0	1
Drasteria tejonica	1	3	0	0	0	0	4
Euproserpinus phaeton	4	0	0	0	0	0	4
Heliothis belladona	2	0	0	2	0	0	4
Litocola sexsignata	21	0	0	0	0	0	21
Loxostege immerens	7	0	0	0	0	0	7
Schinia amarylis	2	0	0	0	0	0	2
Kodiosoma fulva	0	0	0	1	0	0	1

^A The Quino survey area (within the LanWest project site) was initially part of a larger survey area that was separated into three separate CPV projects (LanWest Solar Farm, LanEast Solar Farm, and Rugged Solar Farm) after the completion of protocol Quino checkerspot butterfly (*Euphydryas editha quino*) surveys. LanEast Solar Farm is located adjacent to and east of the proposed project site. Rugged Solar Farm is located north of Interstate 8. All three project sites were surveyed for Quino during the same period. This list of butterfly and moth species observations represents species detected for both the LanWest and LanEast projects (but does not include observations from the Rugged Solar site).

APPENDIX B DAILY WEATHER CONDITIONS DURING QUINO SURVEYS

Appendix B
Daily Weather Conditions During Quino Surveys^A

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum ^c (mph)	Cloud Cover (%)	General Sky Condition
3/30/2011	1	Margaret Mulligan	1410	75	2-5	40	patchy
3/30/2011	1	Margaret Mulligan	1600	75	2-5	65	patchy
3/30/2011	1	Ken Osborne	0900	70	4-8	0	clear
3/30/2011	1	Ken Osborne	0910	68	0-3	0	clear
3/30/2011	1	Ken Osborne	1200	73	6-17	0	clear
3/30/2011	1	Ken Osborne	1420	74	0-4	2	high haze
3/30/2011	1	Ken Osborne	1623	73	3-7	5	haze
3/31/2011	1	Margaret Mulligan	0900	64	3-6	10	clear
3/31/2011	1	Margaret Mulligan	1110	70	2-4	10	clear
3/31/2011	1	Margaret Mulligan	1400	76	3-6	0	clear
3/31/2011	1	Margaret Mulligan	1600	78	2-4	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	0830	60	0-3	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	0900	61	1-5	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	1000	64	1-5	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	1100	69	1-7	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	1200	68	3-8	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	1300	67	3-7	0	clear
4/4/2011	2	Mike Couffer, Brennan Mulrooney ^B	1400	71	2-5	0	clear
4/5/2011	2	Erin Bergman, Brennan Mulrooney ^B	0930	-	-	0	clear
4/5/2011	2	Erin Bergman, Brennan Mulrooney ^B	1153	75	2-4	0	clear
4/5/2011	2	Erin Bergman, Brennan Mulrooney ^B	1200	77	2-5	0	clear
4/5/2011	2	Erin Bergman, Brennan Mulrooney ^B	1300	80	2-5	0	clear
4/5/2011	2	Erin Bergman, Brennan Mulrooney ^B	1400	80	2-5	0	clear
4/5/2011	2	Erin Bergman, Brennan Mulrooney ^B	1500	79	2-5	0	clear
4/5/2011	2	Ken Osborne, Erin Bergman	1153	75	2-4	0	clear
4/5/2011	2	Ken Osborne, Erin Bergman	1555	70	3-6	40	overcast
4/13/2011	3	Erin Bergman	1130	65	1-2	0	clear
4/13/2011	3	Erin Bergman	1200	66	1-2	0	clear
4/13/2011	3	Erin Bergman	1230	66	1-2	0	clear
4/13/2011	3	Erin Bergman	1300	61	3-6	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum ^c (mph)	Cloud Cover (%)	General Sky Condition
4/13/2011	3	Erin Bergman	1330	32	3-6	0	clear
4/13/2011	3	Erin Bergman	1400	61	4-7	0	clear
4/13/2011	3	Mike Couffer	1119	63	3-7	0	clear
4/13/2011	3	Mike Couffer	1200	62	4-9	0	clear
4/13/2011	3	Mike Couffer	1300	62	4-7	0	clear
4/13/2011	3	Mike Couffer	1400	61	4-7	0	clear
4/13/2011	3	Mike Couffer	1500	60	4-10	0	clear
4/14/2011	3	Mike Couffer	0845	60	1-2	0	clear
4/14/2011	3	Mike Couffer	0900	61	0-1	0	clear
4/14/2011	3	Mike Couffer	1000	63	0-1	0	clear
4/14/2011	3	Mike Couffer	1100	66	0-2	0	clear
4/14/2011	3	Mike Couffer	1200	68	0-4	0	clear
4/14/2011	3	Mike Couffer	1300	72	0-3	0	clear
4/14/2011	3	Mike Couffer	1400	73	0-2	0	clear
4/14/2011	3	Mike Couffer	1500	71	1-5	0	clear
4/14/2011	3	Mike Couffer	1600	71	0-2	0	clear
4/15/2011	3	Mike Couffer	0900	66	1-5	0	clear
4/15/2011	3	Mike Couffer	1000	70	1-10	0	clear
4/15/2011	3	Mike Couffer	1100	71	2-10	0	clear
4/18/2011	4	Ken Osborne	1100	60	4-5	50	patchy
4/18/2011	4	Ken Osborne	1252	67	5-12	25	overcast
4/18/2011	4	Ken Osborne	1400	69	10-19	30	overcast
4/18/2011	4	Mike Couffer	1100	60	0-4	25	patchy
4/18/2011	4	Mike Couffer	1200	68	0-4	0	clear
4/18/2011	4	Mike Couffer	1300	72	0-2	40	patchy
4/18/2011	4	Mike Couffer	1400	71	8-15	90	overcast
4/20/2011	4	Mike Couffer, James McMorran ^B	0930	64	3-6	5	clear
4/20/2011	4	Mike Couffer, James McMorran ^B	1000	71	0-3	5	clear
4/20/2011	4	Mike Couffer, James McMorran ^B	1100	73	0-5	5	clear
4/20/2011	4	Mike Couffer, James McMorran ^B	1145	75	5-9	0	clear
4/26/2011	5	Mike Couffer	1230	76	0-3	0	clear
4/26/2011	5	Mike Couffer	1300	77	0	0	clear
4/26/2011	5	Mike Couffer	1400	80	0-1	0	clear
4/26/2011	5	Mike Couffer	1500	78	2-6	0	clear
4/26/2011	5	Ken Osborne	1345	71	2-5	0	clear
4/26/2011	5	Ken Osborne	1410	72	4-5	0	clear
4/27/2011	5	Mike Couffer	0830	70	0-4	0	clear

Date	Survey Week	Personnel	Time	Temperature (°F)	Wind Speed Average/ Maximum ^c (mph)	Cloud Cover (%)	General Sky Condition
4/27/2011	5	Mike Couffer	0900	72	0-4	0	clear
4/27/2011	5	Mike Couffer	1000	73	0-4	0	clear
4/27/2011	5	Mike Couffer	1100	73	0-5	0	clear
4/27/2011	5	Mike Couffer	1200	77	1-7	0	clear
4/27/2011	5	Mike Couffer	1300	76	2-8	0	clear
4/27/2011	5	Mike Couffer	1400	74	2-6	0	clear
4/28/2011	5	Mike Couffer	0900	73	1-7	0	clear
4/28/2011	5	Mike Couffer	1000	84	0-2	0	clear
4/28/2011	5	Mike Couffer	1100	84	0-1	0	clear
4/28/2011	5	Mike Couffer	1200	79	3-10	0	clear
4/28/2011	5	Mike Couffer	1300	82	1-5	0	clear
4/28/2011	5	Mike Couffer	1400	79	3-10	0	clear
4/28/2011	5	Mike Couffer	1500	80	4-10	0	clear
5/2/2011	6	Margaret Mulligan	0900	64	4-8	0	clear
5/2/2011	6	Margaret Mulligan	1200	70	4-11	0	clear
5/2/2011	6	Erin Bergman	0850	64	4-8	0	clear
5/2/2011	6	Erin Bergman	0950	72	4-9	0	clear
5/2/2011	6	Erin Bergman	1200	74	8-10	0	clear
5/3/2011	6	Margaret Mulligan, Erin Bergman	0900	75	2-5	0	clear
5/3/2011	6	Margaret Mulligan, Erin Bergman	1130	78	3-6	0	clear
5/4/2011	6	Bonnie Hendricks	1150	84.5	3-6	0	clear
5/4/2011	6	Bonnie Hendricks	1245	88.2	4-6	0	clear
5/4/2011	6	Bonnie Hendricks	1340	89.5	5-8	0	clear
5/4/2011	6	Bonnie Hendricks	1430	95	1-3	0	clear
5/4/2011	6	Bonnie Hendricks	1530	94.5	3-5	0	clear
5/4/2011	6	Bonnie Hendricks	1600	94	4-7	0	clear

A The Quino survey area (within the LanWest project site) was initially part of a larger survey area that was separated into three separate CPV projects (LanWest Solar Farm, LanEast Solar Farm, and Rugged Solar Farm) after the completion of protocol Quino checkerspot butterfly (*Euphydryas editha quino*) surveys. LanEast Solar Farm is located adjacent to and east of the proposed project site. Rugged Solar Farm is located north of Interstate 8. All three project sites were surveyed for Quino during the same period. This table of daily weather conditions contains weather information for both the LanWest and LanEast projects, but does not include weather information from the Rugged Solar site.

B Supervised biologist

C At times, wind gusts occurred that were more than 15 mph, but this was never sustained. If sustained winds were 15 mph or higher, surveys were stopped.

APPENDIX C FIELD DATA COLLECTED DURING QUINO SURVEYS

Quino Checkerspot Butterfly Protocol Survey — Field Data Sheet

Project: Concentrix So	ar Project	Map #: / Sur	vey Sxn:	QCB Protocol Survey # of	5
TIME (24-hour)	Temp (P):	Wind (avg/max)	% CC	5ky	9
Start 200 1400	750	2-5	40		_
1600	25'	2-15	65	The state of the s	_
1000	1.3	2 : 1	10,	clear (sichij) avercast delozie shower	
			-	clear patchy overcess drizzle shower	
				clear sutray owncast drizzle snower	
				clear patchy overpast drizzte shower	
				Calca Canada Calca	
End				The state of the s	_
Habitat On-site (circle): doen	enile hilltone	ridnes don't nuter	Sant south	clay solis, old roads various nectar sources	
			Total	clay solls, old roads, various nectar sources	
Nymphalidae (Brushfooted	Butterfiles)	HOTELS	mir -	Hesperiidae (Skippers)	Tota
Euphydryas aditha (Quino	Checkerspot)			Erynnis funeralis (Funereal Duskywing)	-
Euphydryas chalcedona (H	enne's Check	erspot)		Erynnis tristis (Sad Duskywing)	-
Thesselie leantro (Wright's	Checkerspot)			Erynnis propertius (Propertius Duskywing)	-
Chlosyne californica (Califo				Erynnis arzo (Sieepy Duskeywing)	-
Chlosyne pabbil (Gabb's C			- 1	Pyrgus communis(Checkered Skipper)	_
Phyciodes mylitta (Mylitta C				Hesperia jubia (Jubia Skipper)	_
Junonia coenia (Common E	luckeye)			Polites sabuleti (Sandhill Skipper)	-
Vanessa annabella (West C	coast Lady			Megathymidae (Glant Skippers)	
Vanosse atalanta (Red Adn				Megalhymus yuccae (Yucca Glant Skipper)	
Vanessa cardui (Painted Li			1: (1		_
Vanessa virginiensis (Virgin	la Lady)			Other Butterflies:	_
Nymphalis californice (Cali	ornia Tortoise	shell)		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	_
Danaidae (Milkweed Butteri	lies)	The second second	TENT		-
Danaus plexippus (Monarch)				-
Danaus gilippus (Queen)				-	_
Satyridae (Satyre)		2000年1月1日	0162		_
Coenonympha californica (C					-
Pleridae (Whites, Sulphurs)		me all	Antonia Contraction of the Contr		
Pieris rapae (Cabbage Whit					_
Pontia sisymbnii (Spring Wh					
Pontia bockerii (Baker's Wh					-
Pontia protodice (Common)					_
Anthocharis sere (Sara Oran					
Anthocharis cethura (Felder				6	_
Euchloe hyantis (Desert Pee	rly Marble)		_ X		
Colles eurytheme (Orange S			1"	A COLUMN TO THE PARTY OF THE PA	
Colles harfordii (Harford's St					_
Nathalis iote (Dainty Sulphur apillonidae (Swallowtails))				
	2 "	THE PROPERTY.	1021	Notes:	7.5
Papillo polyxenes (Desert Bl		11)			
Papilio eurymedon (Pale swa Papilio rutulus(Western Tige	illowtall)				
iodiniade (Metalmarks)		N. Fall Wall			
Apodemia mormo (Behr's Mo	Andreada)	A CHARLES	C. COMPANY		
ycaenidae (Hairstreaks and	ALTO THE REAL PROPERTY.		1 Hildit	(10)	
Celestrine ladon (Spring Azu	Dinesi	TOM STORY			
Leptotes marina(Marine Blue					
Brephidium exite (Western P		-			
		hanna harran			
Glaucopsyche lygdamus (So Homiorous caravava (Schuse		ivery blue)			
Hemiargus ceraunus (Edward Icaria acmon (Acmon Blue)	s Diue)		-	-4:	
Philotes sonorensis(Sonoran	Dise		1	Q i	
Callophrys augustinus (Brown Callophrys dumatorum (Perp	Ellin)				
CONTRACTOR OF A PROPERTY OF A	exing Green H	tairetrook)			_
Strymon melinus (Gray Hairs	senting capping	ion of part)			

3at Nectaring or Host Plants for Quino Checkerspot Sutterfly in Boulevard, California (Concentrix Solar)

rlease Place a Check Marx Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Bolow:

Antirchinum coulterianum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

-	
Amsinckia menziosii	Rancher's Fiddleneck
Antirrhimum coullerian	
Antimhoum purladianum	Nuttairs Snapdragon
Asciopios foscicularis	Narrow-teat Milkwood
Boechore sp	Rock Cress
Colondrinia cillata	Red Maigs
Catochonus concolor	Golden-bowl Mariposa Lily
Calystagin longipus	Moming-glary
Camissonia sp.	Sun Cup
Castilleja oxerta	Paintbrush
Caulanthus heterophynus	San Diago Jawetflower
Coulenihus semulans	Payson's Caulanthus
Coenothus cuneelus	Buck Brush
Ceanothus graggii	Cup-leaf-litac
Ceanothus leucodermis	Chapetral Whilethorn
Chaenacks ademishfolis	White Pincushion
Chaenectis glabriuscula	Yellow Pincushion
Clemetts sp.	Clematis
Colfinsia concolor	Southern Chinose House
Cordylanthus rigidus	Derk-tip Bird's Beak
Coreopsis californice	California Coreopsis
Carethrogyme filaginifo(ia	Common Sand-aster
Cryptentho sp.	Companing
Cucurbile footessime	Calabazilla
Describinia sp.	Tohay-musterd
Dicentre chryseniha	Golden Eur-drops
Dichelosfernma capitalun	Stue Dicks
Dudleye sp.	Dudleyn
Emmenanthe penduktere	Wolspering Bolla
Eriastrum sp.	Woolly-star
Ericameda ap.	Goldenbush
Eligeton follosus	Losfy Dawy
Eriodictyon Inchacelys	Hairy Yerba Santa
Eriogonum fasciculatum	Inland Celifornia Buckwhoat
Edogonum sp.	Buckwheat
Edophytlum sp.	Long-stom Golden-yerrow
Erodium cloutarium*	Red-stem Stodesbill
Erysismum capitatum	Western Walfflower
Eschacholaia californica	California Poppy
Eucrypta chrysanihemiloli	a Spotted Hideseed
Euthamia accidentalis	Western Goldenrod
Garrya yentcha	Canyon Silk Tassel
Glie sp.	Gilla
Grouphakum	Cuthyced
Guillenta feslophylla	Oavifornia Mustard
Gulierrezia sarothme	Broom Matchweed
Heliotropium aurassavicum	7 Sall Heliotrope
Hirshfeldia Ingana	Short-god Musterd
Lamium amplexicação	Henbit -
Lasthenia gracilis	Common Goldfields
Layla glandulosa	White Layin
Lopidum sp.	Popperveed
Linenthus beltus	
Linenthus dichotomus	Descri Beauty
Lonicara subspicata	Evening Snow
Melacothrix californica	Johnston's Honeysuckie
Melecothrix clevelandii	California Dandellon
	Cleve and's Malacothrix
Mersh mecrocarpus	Wild-cucumber
Marrubium vulgare*	Herehound
Matricaria matricarioidos*	Common Pineapple-weed
Mentzelle veetchlane	Veatch's Stick-teak
Microsteria gracules	Siender Phiox
Mimulus sp.	Monkeyflower
Nemophila menzolisii	Small-flower Baby Blue Eyes
Orobancho bulbosa	Chanarral Broom-rane

Chaparral Broom-rape

Orobancho bulbosa

Osmadenia tenetia	Osmadenia
Pesonia californica	California Pecny
Poctocarys sp	Pectocarya
Phaceta ep.	Phacelia
Phuissoma membrangoni	White Flesta Flower
Plagiobaltrys sp.	Poposinflower
Plantago patagonica	Desert Plantain
Platystomon californicus	Cream Cups
Prinus iticifalia Rafinesquia neomexicare	Holly-leaf Cherry
Ribes quercelorum	
Romipa nasturikum-aquati	Cum Water-cress
Rose californica	Colffornia Rose
Saftugiba australis	Southern Gilla
Senecio californicus	California Rutterweed
Senecio Naccidus	Butterweed
Sidelpos malvaeflora	Gnecker-blocm
Sisymbrium sp.	Tumble Musterd
Scédago celifornica	California Goldenrod
Stachys ajugoides	Hedge-nettle
Stephanomeria sp.	Wreathplant
Streptanthus composins	Southern Jewelflower
Stylochne gnaphakoides	Evertasting Nost-straw
Tetradynue comose	Colton-Ihorn
Таузапосагрия вр.	Fingaped
Trichoetemma parishil	Mountain Bluecurie
Tropidocarpum gracilo	Stender Dobie-pod
Uropappus lindleyi	Stiver Puffs
	O-L H
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Recorder: 12.405	CANH	_Add'l Person: _	B	Dale: 2/3-/2-4 GPS Unit: _/	<u>u</u>
Project: Concentrix Sol	ar Project	Map #: 6 Surv	ey Sxn:	G QCB Protocol Survey # / of !	5
A La TIME (24-hour)	Temp (F*):	VAnd (ergimen)	w.cc	Sity	
SIN1 1070 AST	68	a-3	0		
900	70	4-8			
			_0	Elear paticiny overcast drizzle anower	_
124	-2			clear putchy overcast (trizzle shower	
	73	6-17	~	Con patchy overcasi divide shower	
/420	74	0>-4	28 4	the base clear patchy overcust drizzle shower	
				clear patchy overcast drizzie showat	
End /623	73	3-7	575 544		
				clay solls, old roads, various nectar sources	-
	-		Total		Total
Nymphalidae (Brushfooted	CONTRACTOR AND ADMINISTRATION OF THE PARTY O	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		Hesperlidae (Skippers)	
Euphydryss editha (Quino (Erynnis funeralis (Funeraal Duskywing)	
Euphydryas chalcedona (H				Erynnis tristis (Sad Duskywing)	
Thessalla leanira (Wright's				Erynnis propertius (Propertius Duskywing) //	2
Chiosyne catifornica (Califo				Erynnis arizo (Sleepy Duskeywing)	T
Chlosyne gabbli (Gebb's Cl				Pyrgus communis(Checkered Skipper) (4/bescens	1
Phyclodes mylitte (Mylitta C				Hesperie jubie (Juble Skipper)	
Junonia coenia (Common E				Politos sabuleti (Sandhill Skipper)	
Vanessa annabella (West C				Megathymidae (Giant Skippers)	
Vanessa sisianta (Red Adn				Megathymus yuccae (Yucca Giant Skipper)	
Vanessa cardui (Painted L			2		
Vanessa virginiensis (Virgin				Other Butterflies:	
Nymphalis californica (Cali		eshell)	-1		
Danaldae (Milkweed Butter)		To Facility			
Denaus plexippus (Monarch	1)				
Denaus gilippus (Queen)				Mathe:	
Satyridae (Satyrs)		· some service	100		121
Coenonympha celifornica (C		ornia Ringlet)		Deastaces to jource	-
Pieridae (Whites, Sulphurs)	W = 0		1	Bugnasarpinus Abacher 1111	4
Pieris repae (Cabbage Whit				Makesagia? (cu soustan) V	Ċ
Pontie sisymbril (Spring Wh	ite)			Schiela amorphis !	2
Pontis beckerii (Beker's Wh	ite)			Maritan advanta	P
Pontis protodice (Common)				Brasteria edigards : Aff 111	2
Anthocharis sale (Sara Ora	ngetip) /		1	Drasters divergous 1	7
Anthocharis cethura (Felder	's Orangetip)			Meastan 40 (10 hears 1	-
Euchice hyantis (Desert Per	ariy Marble) /	VIIII	11	"Camissans presed" (En voucher)	7
Collas eurytherne (Orange 5	Sulphur) 144	f- "	5	Total Control of Control	-
Colies harfordii (Harford's S	ulphur) /		1		
Nathelis iole (Dainty Sulphu					
Papilionidae (Swallowtails)	Markette Se	THE HE	5 8 1	Notes	
Papillo polyxenes (Desert B	lack Swallowt	all)			
Papilio eurymedon (Pale sw					
Papilio rutulus(Western Tige	r Swallowlail)			
Riodiniade (Metalmarks)		I midsty IF			
Apodemia тотю (Behr's M	etalmark) //	XXXXXVXU	67		
Lycaenidae (Hairstreaks and	Blues)				
Culestrina ledon (Spring Azu	ire)		-		
Leptotes marina(Marine Blue	-				
Brephidium exile (Western P					_
Glaucopsychu lygdamus (Sc		Silvery blue)			
Hemiargus ceraunus (Edwar					_
icaria acmon (Acmon Blue)	I//tuer		8		
Philotes sonorensis(Sonorar		-			
Callophrys augustinus (Brow	in Elfin) //		2		-
Cetophrys dumetarum (Per	lexing Green	Hairstreak) JAP HH	170 12	EC mulan	-
Strymon molinus (Gray Hain			-	= C. perplexa	_
Atlides halesus (Great Purple	e Hairstreak)				

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Chaparral Broom-rape

ase Place a Check Mark Beside Flowering Plants, Use Numbered Notes to Add Species Detail.

LEASE RECORD HOST PLANTS ON GPS See

antirrhinum coulterianum = AC Collinsia concolor = CC Cordyi

Amsinckla manzlesii	Rancher's Flddleneck
Antirchimum coultorianum	
Anthrhinum mittalianum	Coulter's Snapdragon
Aschpies fascicularis	Nuttairs Snapdragon Narrow-leaf Milloweed
Boechera sp.	
Calondrinia criata	Rock Cress
Calochortus concolor	Red Makis
Calystagia longipes	Golden-bowl Mariposa Lity
Camesonia sp. 6747av fa	Morning-glory Sun Cup
Castilleja exerta	Painthrugh
Caulonihus heterophylins	
Caulenthus simulens	San Diego Jewelflower
Ceenothus cuneatus	Payson's Caulanthus
Cennothus graggi	Bud: Brish
Cennothus leucodennis	Cup-leaf-line
Chaeneolis erlenisilfulia	Chapteral Whitethorn
Chaeriactis glabriuscula	White Pincushlon
Cientalis sp.	Yellow Pincushion
	Clemen's
Collingia concolor	Southern Chinese House
Cordylanthus rigidus	Cark-tip Bird's Book
Coreopsis californica	California Coreopsia
Corethrogyne fileginflotte	Common Sand-aster
Cryplenthe sp.	Cryptentha
Cucurbita fostirtissima	Calabazilla
Descuretnia sp.	Tensy-musterd
Ocentra chrysanina	Golden Ear-drops
Dichelostemma capitelum	Skie Dicks
Dudleya sp.	Dudleya
Emmonanthe pendulliera	Whispering Balls
Enastrum ap.	Woolly-star
Ericameria sol. Ilmanifolia	Goldenbush
Erigeron foliosus	Leafy Dawy
Eliodictyon trichocalyx	Heiry Yerba Santa
Erlogonum fescioniatum	Inland California Buckwhea
Erlogonum sp.	Buckwheat
Enophyllum sp.	Long-stem Golden-yarrow
Erodium okutedum*	Red-stem Storksbill
Erysiamum cepilatum	Western WellSower
Esclischnizie californice	California Poppy
Eucrypta chrysanthenniolla	Spotted Hidasopa
Euthamia occidentalis	Western Goldenrod
Garrya veetchă	Canyon Side Tassel
Gilla sp.	GIL
<i>Эпарлания</i>	Сиджева
Buillente Instophylla	Catifornia Mustard
Substrazia satolhrae	Broom Matchweed
foliotropium curassavicum	Salt Heliotrope
tirshfeidia incena	Short-pod Mustard
Amium amplexiceule	Henbit
asthania gracilis	Common Goldfields
ayla glandulosa	White Layin
apidum sp.	Pepparwed
inanihus belits	Desert Beauty
inanthus dichotomus	Evening Snow
onicere subspicera	
falacoityrx californica	Johnston's Honeystickie
falocotorix clavelandii	California Dandellon
	Cleveland's Malacothrix
fareh macrocarpus	Wild-cucumber
farrubium vulgare"	Horahound
falricana maintennohiles*	Common Pinosppie-weed
fentzella ventchloria	Vealch's Slick-leak
florosturis gracitis	Slender Phlex
limelus ap	Monkeyflowst
emophile menterski	Small-flower Baby Blue Eyes
minopoles menters	Auto Callet Panel Pane Citi

Orobanche bulbosa

riant	thus rigidus = CR Plantago p	otogonica = PP
_		
13	Osmatienia tenella	Osmedenia
15-	Peronia celifornica	California Peony
0	Peolocerya sp	Pectocarya
4	The second secon	Phacella
ن ا	Pholistoma membranoceum	White Flesta Flower
-	Plaglobothrys ap	Popcomflower
n	Plantago patagonica Platystamon californicus	Desort Plantain
	Printis Visifolie	Cream Cups
D		Molly-leaf Cherry
0	Ralinesquia neomexicana Ribos guardotoram	Desert Chicory
10	Rompa nasturarn-equatioum	Oak Gooseberry
-1	Rose celfornica	Water-cress
(1	Safugalia quatratis	Catifornia Rose
2	Senecio californicus	Southern Gita
.5	Senecio fleccidus	California Butterwee
0	Sidelices melvaeflore	Butlerwood
	Sisymbrium so.	Chacker bloom
-		Tumble Mustard
	Solidago californica	California Goldenro
11	Stachys ajugoides	Hedge-nettle
0	Stephanomeria sp	Wreathplant
	Streplanthus campestris	Southarn Jewelflow
-	Stylocline gnaphalioides	Evertaining Nest-str
- T	Tetradymia comasa	Colton-thorn
	Thysenocarpus sp.	Fringepod
PI	Trichostemma parishii	Mountain Bluecuris
734	Tropidocarpuni gracile	Slender Doble-ped
G	Uropappus lindleyi	Silver Puffs
0	Viola purpurea	Oak Yellow Viole!
0 0	Other Flowering Plants:	- 1,
11	Alexas tuilabe	te
0	T+= ===================================	
**		
101		
2		
9	Care Moralla C Creek	
-	Rare Wildlife or Rare Plants:	
C	1-22	
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Ir.	P. Committee of the Com	
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Project: Concentrix		Map #: / Sun	/ey Sxn:	QCB Protocol Survey # of 5
TIME (24-hour) Start 0900	Temp (Fix	Wind (avg/max)	% CC	5ky
4 45	4	3-6	10	clear patchy overcase drizzle shower
1110	70° F	2-4	10	goar) palchy overpasi drizzlu shower
1400	761-	3-6	0	Ses policity overgast drizzle shower
1600	187	7-4	0	clinar patietry overcast drizzle showed
				clear tratchy overcoast drizzle shower
				The same of the sa
End				A Trapel State Appel
Habitat On-site (circle): or	en solls) hilltops.	ridges, rock outcro	os, soil crusts,	clay solls, old roads various nectar sources
Nymphalidae (Brushfool			(otal	Y
Euphydryas editha (Quir	no Checkerspot)	1 7 1		Hesperiidae (Skippera)
Euphydryas chalcedona	(Henne's Checke	erspot)		Erynnis funeralis (Funereal Duskywing) Erynnis tristis (Sad Ouskywing)
Thessalia leanina (Wrigh	t's Checkerspot)			Erynnis propertius (Propertius Duskywing)
Chiosyne californics (Ca	lifornia Patch)	-		Erynnis brizo (Sleepy Duskeywing)
Chlosyne gabbil (Gabb's	Checkerspot)			Pyrgus communis(Checkered Skipper)
Phyciodes mylitta (Mylitt	a Crescent)			Hesperia jubia (Jubia Skipper)
Junonia coenia (Commo	n Buckeye)			Polites sabuleti (Sandhill Skipper)
Vanessa ennabella (West	st Coast Lady			Megathymidae (Glant Skippers)
Vanessa atalanta (Red A Vanessa cardui (Paintec	unmiral)		1	Megethymus yvccae (Yucca Giant Skipper)
Vanessa virginiensis (Vir	rainin Lodus			
Nymphalis californica (C	gima Lady) Milirmia Testelani	nhelf)	_	Other Butterfiles:
Danaldse (Milkweed Butt	arflies)	SHOW)		
Danaus plexippus (Mona	rch)			
Danaus gilippus (Queen)				
Satyridae (Satyrs)		W =	0.00	
Coenonympha californica	(Common Califo	rnia Ringlet)		
leridae (Whites, Sulphu	(8)	THE WAY	-1	
Plens rapae (Cabbage W	hite)			
Pontia sisymbrii (Spring V	White) DROVEN			
a purity powers (payer a A	wnite)		44	
Pontie prolodice (Commo	n White)		A.	
Anthocharis sera (Sara O Anthocharis cethure (Feio	rangetip)		mitm	
Euchloe Invantis (Desert F	Poeth Machie			
Callas eurythema (Orange	earry wardie)		11411	
Colias harfordii (Harford's	Sulphur) - Mar	100 A 100	A STATE OF THE STA	EM 2
Nathalis lole (Dainty Sulpi	nur)	Contraction of the second	CONTRACT DAYS	TAY
apilionidae (Swallowtalls	White the line	12 m2 11		Notes:
Papilio polyxenes (Desert	Black Swallowtai	b	and the same of th	(HOIGE)
Papillo eurymedon (Pale :	swallowtail)		- 1	
Papilio rutulus(Western Ti	ger Swallowtall)			
(odiniade (Metalmarks)	the things	E & _ 11 50	20	
Apodemia mormo (Behr's	Metalmark)		MILH	मन्ता माना मा का मा भारता राज्य
rcaenidae (Hairstreaks a	nd Blues)			THE WILL STREET THE STREET STREET
Celastrina ledon (Spring A Leptotes merina(Madne B	zure)			
Brephidium extle (Western			_	
Glaucopsyche lygdamus (Southern Blueber	vacy hims		
Hemlargus ceraunus (Edw	ard's Blue	very Digg)		
caria acmon (Acmon Blue			-	
hilotes sonorensis(Sonor			1	
Callophrys augustinus (Bro	own Elfin)			
Calkiphrys dumetorum (Pe	rplexing Green H	airstreak)		
Strymon melinus (Gray Ha	irstreak)		-	
Atlides halesus (Great Pur		× 6.4	1	
EVENUS amy	NHIA (W	blue	all	
	W	Mark The Control of t	and the same	

intial Nectaring or Host Plants for Quino Checkerspot Butterfly In Boulevard, California (Concentrix Solar) HORDRA.

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below

Antirrhinum coulterionum = AC Collinsia concolor = CC Cardylanthus rigidus = CR Plantago patagonica = PP

	Amsinakla menzlesti	Rancher's Flödleneck
	Antirrhimum coulterianum	Coulter's Snepdragon
1	Anlantinum nutlelletrum	Nuttail's Snapdragon
ı	Asclepies fasciculons	Narrow-leaf Milkweed
1	Boechera sp	Rock Cress
ı	Cetandrinia cuiete	Red Maids
1	Calochorlus concolor	Golden-bowl Mariposa Lily
	Calysiegia longipes	Morning-glory
	Cemisson's su	Sun Cup
	Costilicia and the Control of the Control	Paintbrush
	Caulanthus heterophylius	San Diogo Jewelflower
	Chulenthus simulans	Payson's Csulanthus
	Ceanothus cureatus	CONTRACTOR AND ADDRESS OF THE PARTY OF THE P
		Duck Brush
	Ceanothus greggii	Cup-loaf-lilac
	Coanothus leticodormis	Chaparral Whitethorn
	Chaenactis ertemisiifalie	White Pincushion
	Chaenectis glabriuscula	Yellow Pincushion
	Clometis sp.	Clemata
1	Collinsia concolor	Southern Chinese Houses
	Cordytanthus rigidus	Dark-tip Bird's Beak
	Cornopsis californica	California Coreopela
	Corothrogyne Magnifolia	Common Sand-aster
	Cryplenthe sp.	Cryptaniha
	Cucurbita foeticlissima	Calabazita
	Descursinie sp.	The second secon
-		Tansy-mustard
	Dicentra chrysantha	Golden Ear-drops
	Dichalostemme capitatum	Blue Dicks
	Durilleya sp	Oodleya
	Emmenenthe pendulifera	Whispening Bells
	Erlastrum sp.	Woolly-star
į	Ericamoria rp. Jinoan	Goldeniush
	Erigeron foliosus	Loafy Daisy
	Eriodictyan trichocalyx	Hairy Yerba Santa
	Erlogonum fasciculatum	Inland California Buckwheat
	dogonum sp.	Buckwheal
	mophyllem of the Long CA	Long-olem Golosin yarrom
	rodkum cicularlum	
		Red-stern Starksbill
	tysismum ceptatum	Western WeltDower
	Eschscholzia californica	California Poppy
	verypta chrysanthemifolia	Spotted Hidesced
	Euthamia occidentalis	Western Goldenied
(Sarryo veelche	Canyon Silk Tassel
	Silla sp.	GRIB Cudwaed Survivo
(Snaphahum	Cudward 50%
	Guillenia lasiophylla	California Mustard
_	Sutierrezia sarothrae	California Mustard Broom Matchweed Salt Heliotrope Shod and Mustard
_	teliotropium curessavicum	Salt Hellotrope
	tirshfekile incana	Short-pod Mustard
	amium emplexicavia	One t-hon laightend
		Henbit
	estherus gracitis	Common Goldfields
	ayla glandulosa	White Layin
	epidrum sp	Pepparwaed
L	Inanthus ballus	Desert Beauty
	inenthus dichotomus	Evening Snow
	onicera subspicata	Johnston's Honeysuckle
	Aslecother californica	California () prodelion
	felecolhrix clevelandri	Cievoland's Malacolhtix
	Логай тестосагруз	
		Wild-cucumber
	famuokim vulgore*	Harehound
	fatricaria matricanoides*	Common Pincapple weed
	fentzella vealchiene	Venten's Stick-leak
	Ricrosteris grecilis	Standor Prilox
	finulus ap.	Mankeyflower
A	komophila menzelsli	Smell-flower Baby Blue Eyes
11		

	Osmariena terelle	Demadenia
	Pagon's callomice	California Paony
(Pectocarye sp	Pectocarya
	Phacelie sp.	Phacetia
	Pholisioms membraneceum	White Figets Flower
3	Plyglobathrys sp.	Popcomflower
	Plantago patagonica	Desort Plantain
Ž:	Playslemon californicus	Cream Cups
	Printer delitate	Holly-leaf Chetry
	Rafinosquis neomoxicano	Deson Chicory
	R-bes quercatorum	Oak Gooseberry
	Remipe nesturilom-equaticum	Water-cress
	Resa celifornica	Carlotnia Rose
	Sallugilia uustralis	Southern Gilla
	Senecio californicus	California Butterweed
К	Senecio fisocidus	Birtlerweed
	Sidalces melvaeflors	Checker-bloom
e.	Sisymbrium sp.	Tumble Mustard
	Solidayo celifornice	California Goldonrod
	Stachys ajugoides	Hadgo-nettle
	Stephanomeria sp.	Wreathplant
	Streptenthus compestris	Southern Jewelflower
	Stylockine gnaphalioides	Everlasting Nest-stray
	Tetrodymia comosa	Cotton-thorn
	Thysonocarpus sp	Fringepod
	Yrichostomma parishik	Mountain Blueouris
	Tropidoc arpum gracile	Stander Dable-pod
	Uropappus findleyi	Silver Pulfa
	Viola purpuroa	Clark Yellow Violet
		The state of
	Other Flowering Plants:	The same of the

Rare Wildlife or Rare Planja: Gerran Viscida MAGGOT - 07

> Astragales develoses prestrictus MM AD01-10

Limanthus bellus MMLBO1-05

streplantous compestis

Mortero -> Rack w/ 3 morters and shards of clay pots. Looks like someone set them there

Project: Concentrix Se	olar Project N	tap# 6 Sur	vey Sxn: -	QCB Protocol Survey # 20 of	5
TPME (24-hour)	Temp (PT)	Wheel (avg/max)	N CC	Sky	
SUN COSSO MRS	©O°F	0-3	0	cliear patichy overcent dilade shower	
0900	GIOF	1->5	or	Giner politicity diversional retrizole progression	
1000	GYOF	1->5	0	100	
1100	690F	197	0	(m)	
1200	08°F		7.5	7700	_
		378	0	potchy overcast drizzle shower	
1300	9070	307	6	clear palchy overcest drizzle shower	
5nd 1400	30 E	2-5	B	clear patchy overcast discile shower	
Habitat On-site (circle): Ope	n solls, hilltops,	ridges, rock outers		clay solla, old roads, verious nectar sources	_
Nymphalidae (Brushfoote	d Dutterfless		Total	I Was allower (Olderson)	Total
Euphydryas editha (Quino		4	71 5	Hesperiidae (Skippers)	
Euphydryas chalcedona (mant\		Erynnis funeralis (Funereal Duskywing)	
Thessalla leanira (Wright)		erspoty		Erynnis tristls (Sed Duskywing) Erynnis propertius (Propertius Duskywing)	
Chiosyne californica (Cali				Erynnis brizo (Sleepy Duskeywing)	-g,
Chlosyne gabbii (Gabb's				Pyrgus communis(Checkered Skipper)	-
Phyciodes mylitte (Mylitta				Hesperia jubia (Jubia Skipper)	
Junonia coenia (Common				Polites sabulati (Sandhill Skipper)	
Vanesse annabolla (West				Megathymidae (Glant Skippere)	_
Venesse alalanta (Red Ad				Megalhymus yuccae (Yucca Giant Skipper)	-
Vanesse cardul (Painted				and desiry transport and desired and desired as a second	_
Vanessa virginiensis (Virg				Other Butterflies:	_
Nymphalis californica (Ca		shell)		COMMON SOOTYWING	a
Danaidae (Milkweed Butte			-20-00	VANESSA SP.	97
Danaus plexippus (Monar				CLOUDIESS SCHURUR	2
Deneus gifippus (Queen)				CHARLES SOCKANO	
Satyridae (Satyrs)	material 100				
Coenonympha californica	(Common Calif	omia Ringle()			
Pleridae (Whites, Sulphur			Name of the last		
Pleris rappe (Cabbage Wi					
Pontia sisymbrii (Spring V	The same of the sa				
Pontia beckerii (Beker's V					
Pontia protodice (Commo			1		
Anthocharis sare (Sara O			8		
Anthocharis celhura (Feld					
Euchloe hyantis (Desert P			4		-
Colies eurytheme (Orange			3		
Colias harfordii (Harford's			97		
Natholis iole (Dainty Sulph			띡	W. C. C.	
Papilionidae (Swallowtails	The second name of the second name of	The state of the s	1000	Notes:	
Papillo polyxenes (Desert		311)		1500HRS, 73°F, WIND OF THMH CLEAR.	
Papilio eurymedon (Pale s Papilio rutulus(Western Ti		·	_	1600HRS, 73°F, WINDS OF ZMM CIERR	
Riodinlade (Metalmarks)	gor owellowial		F-10-200		
Apodemie mormo (Behr's	Matalmanta		100		
Lycaenidae (Hairstreaks a			100		
Celastrina ladon (Spring A	CALLEGA CONTRACTOR OF THE PARTY	Windle to the Jack			
Leptotes marina(Marine B	the state of the s				
Brephidium exila (Western					_
Glaucopsyche lygdamus ((euld vievli			-
Hemiergus coreunus (Edw	and the Control of th	7			-
Icarla acmon (Acmon Blue			0		
Philotes sonorensis(Sonor			0		
Callophrys augustinus (Br					
Callophrys dumalorum (Pe		Hairstreak)	3		
Strymon melinus (Gray Ha					
Attides halesus (Great Pur	his Lightenian				
WESTERN TAILE			au		

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Askorostens gracilla

Nemophila menzeisli

Orobancha bulbosa

Minnulus ep.

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirihlaum coulterlanum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

 Amsinckie menziesii 	Rancher's Fiddleneck
· Andmhimum coultertanum	Coulter's Snepdragon
Antiethinum nuttallippum	Nultairs Snapdragen
Asclepies fesciculeris	Narrow-leaf Milkweed
· Doechoro sp.	Rock Cress
Celandifinia citiata	Red Maids
Celochortus concelor	
Calystagra longipes	Goldon-bowl Mariposa Lily
Camissonia sp	Morning-glory
Castiliala exerta	Sun Cup
	Paintbrush
Annual property of the Control of th	San Diego Jewelf.over
Caulenthus simulans Ceanothus cuneatus	Payson's Caulanthus
	Book Brush
Ceanothus greggii	Cup-leat-blac
Ceanothus leucodermis	Chaparral Whitethorn
Chaeneclis artemisitolia	White Pincushion
Cheeneotis glabriuscule	Yellow Pingushipn
Clamatis sp.	Clematis
Coffinsia concolor	Southern Chinese Houses
Cordylanthus rigidus	Dark-do Bird's Book
Coroopsis californica	Celifornia Consopsis
Corethrogyne Repinifolia	Common Sand-asies
Comiantha sp.	Cryptaniha
Cucurbita footidissima	
Doscuminie sp.	Catabazina
Dicentre onrysonina	Tansy-mustard
Dichelostoreme capitatum	Golden Ear-drops
	Blue Dicks
Dudieye sp. Emmenbothe dendulifers	Dudleya
	Whiteparing Belts
Enastrum sp.	Wapily-clar
Ericomeria sp.	Goldenbush
Engaron foliosus	Leafy Daisy
Eriodiciyon Inchecalya	Haby Yerba Sania
Erlogonum lasciculatum	Inland California Buckwheat
Erlogonum sp.	Buckwheat
Eriophytlum sp.	Long-stem Golden-yarrow
Erodium cicutarium*	Red-stem Startsbill
Erysismum capitatum	Western Wallfower
Eschscholzia californico	Celifornia Poppy
Eucrypia chrysanthemifota	Spotted Hideseed
Eulhomia occidentalis	
Garrya vestchli	Western Goldenfod
44	Canyon Sizk Tassel
Gille Sp.	Gliu
Gnephalium	Cudweed
Guillania lasiophytia	California Mustard
Gullemezia sarottuna	Broom Matchweed
Heliotropium curossavicum	Salt Heliotrope
Hirshfoldia Incene	Short-pod Mustard
Landum amplexicable	Henbit
Lastheria procitis	Common Goldhelds
Layla glandulosa	White Leyle
Lepidum sp	Pepperweed
Linenehus bellus	
Linenthus dichotomus	Desert Beauty
Lonicera subspicata .	Evening Snow
Malacothnx celifornics	Johnston's Honeysuckle
Malaculirix clovelandii	Celifornia Dandellon
	Cloveland's Malecothdx
Mareh macrocarpus	Wild-cucumber
Marrubium vulgaris*	Horehound
Mairicana mninceno des*	Common Pineapple-weed
Mentzeka veetchiena	Vestch's Stick-leak
Asicrostens gracilis	

Stender Phlox

Monkeyflower.

Small-flower Baby Blue Eyes

Chaparral Broom-rape

Osmudonie tenete	Osmedenia
Pasonia californica	California Poony
Peciocerya sp	Pectocarya
Phacelie sp.	Phacella
Phofisioms membranaceum	While Flesta Flower
Plegiobothrys sp.	Popcomflower
Plantago patagonica	Desert Plantain
Philystemon californicus	Cream Cups
Primus Hicifolis	Holly-leaf Cherry
Refinesquie reomexicans	Desert Chicary
Ribas quercelorum	Oak Gooseberry
Rorripa nesturilum-equaticum	Water-cress
Rosa californica	California Rose
Sallugilla australis	Southern Gilia
Senecio californicus	California Butterweed
Senecio fiscoldus	Butterweed
Sidalosa malvaetlora	Chacker-bloom
Sisymbrium sp.	Tumble Mustard
Solidago californica	Catifornia Goldenrod
Stachys ajugoides	Hedge-nattle
Siephanomaria sp	Wreathplant
Streplanthus campostris	Southern Jewelflower.
Stylocline gnaphelioides	Everlasting Nest-straw
Tetradymia comosa.	Cotton-thorn
Тлузапоситрия вр.	Fringepod
Tochoslemme panahii	Mountain Bluncurts
Trapidocarptim gracile	Slender Drole-pod
Unopeopus Hadieyi	Silver Puffs
Viola purpurea	Oak Yellow Violet
	377-L-7157
Other Flowering Plants:	

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Rare Wildlife or Rare Plants:

WCRZO1 TBOIL BLACK-THILED JACKPASSIT MC MARKET BELL 1 DESERT BEAUTY MC 8302 B.T JACKEASBIT S.D. HORNES LIZARD BMHLOI

./			•	Rate /	
Recorder: Kon	Osbara	_Add'l Person:		Bargan . Date: 4/5/2011 GPS Unit :	
Project: Concentri	ix Solar Project 1	Map #: 7 Sur	vey Sxn:	7 QCB Protocol Survey # 2 of	5
Start // 53	Temo (F1):	Wind (evalmen)	% cc	Sky	
Start // 5 3	75	2-4	0	clear perking pynerast drazile shower	- 11
				Gine palchy overcast drizzle shown	
		7. 7. 6.11	-	clear patchs evarcast drizzle shower	
				A CONTROL OF THE PARTY OF THE P	
				clear patchy overcest ditzse shower	
				clour Setchy ovurcant drizzle shower	
255	_			clear ceticity overcast drizzle shower	-
End 355	70	3-6	40 X	cidor patchy overcate drazia shower	71
Habitet On-site (circle):	open soils, hilltops,	ridges, rock outcre		s, clay soils, old roads, various nectar sources	
Manager / Harabet	autod Dulle-Disa	The state of the state of	Tota		Total
Nymphalidae (Brushf Euphydryas aditha (C		+		Hesperlidae (Skippers)	
Euphydryas chalcedo		Manan		Erynnis funeralis (Funereal Duskywing) Erynnis Instis (Sad Duskywing)	
Thessalia leanira (Wi			- /	Erynnis Instis (Sad Duskywing) / Erynnis proportius (Propertius Duskywing)	/
Chlosyne californica			-	Erynnis brizo (Sleepy Duskeywing)	,
Chlosyne gebbii (Gat				Pyrgus albescens (Checkered Skipper) //	2
Phyciodes mylitta (M					_
Junoria coenia (Com		-	1	Polites sabulati (Sandhill Skipper) ///	3
Vanessa annabella (1	Megathymidae (Giant Skippers)	-3
Vanesse etalante (Re	- The state of the		1	Megathymus yuccae (Yucca Giant Skipper)	
Vanessa cardul (Pai			1		
Vernesse virginiensis				Other Butterflies:	
Nymphalis californica	(California Tortolse	eshell)			
Danaldae (Milkweed E	Butterfiles)		3(72)		
Danaus ploxippus (M	lonerch)				
Danaus gilippus (Que	een)				
Satyridae (Satyrs)		NEWSTERN ST	7	Mathi	
Coenonympha califor		fornia Ringlet)		Brastana tejonica III	3
Pieridae (Whites, Sulp	The state of the s				
Pieris rapae (Cebbag					
Pontia sisymbrii (Spri					
Pontia beckerii (Beke	Andrew Control of the				
Pontia protodice (Cor			3		
Anthocharis sara (Sa		1	4		
Anthocharis cethura (Euchloe hyentis (Des					
Colias eurytheme (Or		-	_ /		-
Collas harfordii (Harfo		7	2		
Nethalis iole (Dainty 5			- 3		
Papilionidae (Swallow	market bright have been been been been been been been be	-Market State of the State of t	E380A	Notes:	
Papillo polyxones (De		tail)		Investigation of the second	
Papilio eurymedon (P		,			
Papillo rululus(Weste		ŋ			
Riodiniade (Metalmari		Addition of the second	20.7		
Apodemia mormo (Ba	ehr's Metalmark)	141/	15	*	
Lycaenidae (Hairstrea			- T		
Celastrine ladon (Spr					
Laptoles murina (Mar		100			
Brephidium exile (We		11	2		
Glaucopsyche lygdan		Silvery blue)			
Hemiergus cereunus					
Icaria acmon (Acmon			3 2		
Philoles sonorensis (- 4		
Callophrys augustinus	S (Brown Ellin)	Intertweet 277 -			
Callophrys perplexa (Strymon melinus (Gra		alistreak)[[]	6		
			-		
A stunded transfer indica	Attides halesus (Great Purple Hairstreak)				4

itial Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar) enoita.

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

ordylanthus rigidus = CR | Plantago patagonica = PP

	Antirchlnum coulterionum	= AC Collinsia concolor = C
Ó	Amsinckia menziesii	Rancher's Flddleneck
ŀ	Anticrhimum coulterianum	Coulter's Snepdragon
	Artistioum nuttalianum	Nuttall's Snapdragon
	Asciepins to scicultura	Narrow-leaf Mikweed
	Boschera sp.	Rock Cross
	Calondrinio citata	
	Calochortus concolor	Red Margs
	Calystegia longipos	Galden-bowl Mariposa Lily
	Carrissonia sp	Morning-glory
		Sun Gup
	Castitloja exerte	Paintbrush
	Coulantinus hoterophylius Coulantinus simulans	San Diego Jewelliower
		Payron's Caulanthus
	Coanothus cunestus	Buck Brush
	Ceanothus greggil	Cup-leat-liled
	Ceanothus leucodermis	Chaparal Whitethorn
	Choonectis externisidoba	White Pincushion
	Chaenactis glatinuscula	Yellow Pincushlon
	Clematis sp.	Cle/natis
	Collinsia concolor	Southern Chinese Houses
	Cortlylanthus rigidus	Dark-tip Sird's Beak
	Corpopsia chidornica	Catifornia Coreopsia
	Corethrogyne Reginfolia	Common Sand-aster
	Cryptantha sp.	Cryplanths
	Cucurbita foetidissima	Cakobazilla
	Descurainte sp.	Tanay-mustard
	Dicentre chrysantha	Golden Ear-drops
	Dicheloslemme capitalum	Blue Dicks
	Outdays 52	Dudleya
	Emmenanthe pendutifora	Whispering Bells
	Erlastrum ap.	Woolly-slar
	Ericameria sp.	Goldenbush
	Erigoron Taliosus	
	Eriodiciyon trichoculys	Leafy Datay
	Eriogonum fusciculatum	Herry Yerba Santa
		Inland California Buckwheat
	Eriogonum sp.	Buckwhost
	Erlophyllum sp	Golden-yarrow
	Erodium acutavium*	Red-stern Stockshill
	Erystsmum capitatum	Wastern Walthower
	Eachschofzie californica	California froppy
	Everypto chrysanthomilolio	Spotted Hideseed
	Euthamie occidentalis	Western Goldenrod
(Garya voulchil	Canyon Silk Taskel
	Gilla sp.	GIILa
	Gnophallum	Cuchweed
	Guillenia Inslophylla	California Mustard
4	Gulierrezia sproinrao	Broom Matchweed
	Heliotropium cumssavicum	Sall Heliotrope
ŕ	Hrshleidin incane	Short-pod Mustard
	krinium amplexicaute	Henbit
	distranta gracitis	Common Goldfields
	Leyre glandulosa	White Levis
	tiplotum sp.	Péopenyead
	Janthus belius	Desert Beauty
	Unanthus dicholomus	
	onkora subsolenta	Evening Snow
	Malacothrix Californica	Johnston's Honeysucide
		California Dandelion
	Malecolhrix clevelanda	Cleveland's Malacothitic
	Marah macrocarpus	Wild-cucumber
	famubium volgare*	Horehound
	Astricana matricarloides*	Common Pineapple-weed
	Ventzelie vealchlune	Veatch's Stick-laak
Ą	Airrosteris gracilis	Slender Phlox
	a.k.	

Monkeyflower

Small-flower Baby Blue Eyes

Chaparral Broom-rape

Mimulus sp.

Nensophila manselsii

Orobanche bulbasa

4.0

-1	Osmadenin (eneka	Osmadenia
57	Paeorie californice	
		California Peony
	Poctocarya sp.	Pediocarya
.,	Phacolia sp.	Phacelia
	Phossioma mentironaceum	White Flasta Flower
F,	Plagiobothry's sp.	Popcomillower
Ų	Plantago patagonica	Deabrt Plantain
0	Platystemon californicus	Cream Cups
.0	Prunus Nicifolia	Holly-leaf Cherry
41	Rolmesquie reconoxicana	Detert Chicary
	Ribes querçotarum	Oak Gooseberry
Ð	Rompo nastunium-aquateum	Water-cress
0	Rose callornica	Caldomia Rose
a.	Settograe australis	Southern Giftg
-	Senecio californicus	Colfornia Bulterweed
0	Sunnela flaceldus	Butterweod
	Sidalcen malvaellora	Checker-bloom
3	Sisymbrium ap.	Turnble Musters
G.	Solidago californica	California Goldeniod
-1	Stachys ajugaides	Hedgo-nettlo
	Stephenomena sp.	Wreniholant
Č.	Streptanthus compestris	Southern Jewelllower
0	Stylocline gnaphalioides	Everlasting Nest-straw
ci.	Tetradynia comosa	Cotton-thorn
100	Thysanocarpus sp.	Fringepod
9	Trichostomma perishi	Mountain Bluecurts
41	Tropidocerpum gracile	Slender Dobre-pod
	Uropappus Indleyi	Silver Puffs
-)	Viole purpules	Oak Yellow Violet
57		Comme LandOlfs Auchell
5,7		
	Other Flowerien Plants:	

Other Flowering Plants:

Rare Wildlife or Rare Plants: 0

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Quino Checkerspot Butterfly Protocol Survey — Field Data Sheet Recorder: En Blign And Person: GPS Unit Project: Concentrix Solar Project Map #: Survey Sxn. QCB Protocol Survey # of TIME (24-hour) Tamp (F*): Wind (ave/med) Start /1:30 1-2 6 (clear) **avercest** dázde shower 6601

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	15/ 1	14-4	:23	Grade paticity averages drizes shower
End				clear paictay evercent drizzle always
Habitat On-site (circle): o	pen soils, hilltops, i	idges, rock outer	ops, soil crusts	clay soils, old roads, various nectar sources
Nymphalidae (Brushfo	sted Butterflies	SS - SF - 3	Total	IOG
Euphydryas editha (Qu	ing Chackground)	To leave	25.00	Hosperiidae (Skippers)
Euphydryas chalcedon	A (Honno's Chacks	(fance)	-	Erynnis funereal Duskywing)
Thesselia leanira (Wrig	ht's Chackerent	raport		Erynnis tristis (Sad Duskywing)
Chlosyne californica (C	olifornia Datek			Erynnis propertius (Propertius Deskywing)
Chlosyne gabbli (Gabb	e Chackement			Erynnis brizo (Sleepy Duskeywing)
Phyciodes mylitta (Myli				Pyrgus albescens (Checkered Skipper)
Junonia coeria (Comm		_		Hesperia jubia (Jubia Skipper)
Vanessa ennabella (W	tel Coset Lected		5	Polites sebulati (Sandhill Skipper)
Vanossa etalenta (Red				Megathymidae (Giant Skippere)
Vanessa cardul (Paint				Megathymus yucqae (Yucca Giant Skipper)
Vanessa virginiensis (V				Other Butterflies: STO DOWN
Nymphalis californica (Colifornia Todalia	A sin		
Danaldae (Milkweed Bu	Manifest Tortoises	inell)		Brids -
Danaus plexippus (Mor	nernies)			Cal garant Cattoria
				white up ned openou the whole what
Denaus gilippus (Quee	0			Sand son
Satyridae (Satyrs)	an /Oak and Oak	The state of the s	F-IT-N	Sand you
Coenonympha celifornii	ra (Common Callio	ma Ringlet)		monky dore
Pieridae (Whites, Sulph		E. S. S. L. 10	3 27	harta -
Pieris rappe (Cabbage)				Kel tail,
Pontia sisymbrii (Spring				AUDU SUDDEMEN,
Pontia beckerii (Beker's				western place over
Pontile protodice (Comm			-	
Anthocharis sere (Sara				
Anthocharis cethura (Fe	ider's Orangetip)			
Euchloe hyantis (Deser	Pearly Marble)			
Calles eurytheme (Oran	ge Sulphur)			
Colias harfordii (Harford				the American
Nathelis lole (Dainty Su				Salex 5 m x 60m area
Papilionidae (Swallowta				Notes:
Papilio polyxenes (Dese		1)		Surveyed ferce line of 7 and
Papilio eurymedon (Pale				markered SD62 road wasting
Papilio rutulus(Western				for weather (for cold in maining)
Riodinlado (Metalmarks)			GVE	02
Apodemia mormo (Behr	's Metalmatk)	HTI WILL	16	GREAT 7- Near Force and off SASE ros
ycaenidae (Hairstreaks	and Blues)			2/30/101-1
Celastrine ladon (Spring				EBOCO 1-3 ENCOMEN. COMMITTEE
Leptotes marina (Marine				FRavoi -
Brophidium exile (Weste				25 8002-1 EBGV16-1 600000000
Glaucopsyche lygdamus		very blue)		250V 03 1 956V 17 1
Hemiargus ceraunus (Er			- 1	EB91041 8661 8-1
Icaria acmon (Acmon Bi			13	EP905-1 GBOUR-
Philates sonorensis (Sar	noran Blue)			2BGr 06-1 886V 30-1
Callophrys augustinus (E				583 (V 0) 58 6V 2)
Callophrys perplexa (Pe	rplexing Green Hair	streak) (1 i i	14	
Strymon melinus (Gray I			1	5 K . L . A & 1
Attides halesus (Great P				The state of the s
	- The Roy			
		_	_	
				Con 12-1 SDEE road Cong

Initial Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar) Judbons

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below.

Antirrhinum coulterianum = AC Collinsia concolor = CC Cardylanthys rigidus = CR Plantago patagonica = PP

	Amsinokia menziesii	Rancher's Fiddleneck
,	Antirrhimum coulterlanum	Coulter's Snapdragon
	Antirchigum gottalliagum	Nullatia Snapdragon
	Asciepies fescicularis	Narrow-lest Mileweet
	Boachers sp.	Rock Cross
	Colondrinia ciliata	Red Maids
	Calochortus concolor	Golden-bowl Mariposa Lily
	Cetyslegia longipus	Morning-grary
	Camissonia sp	Sun Cup
	Castillela exerta	Painibrush
	Cardenthus heterophytus	San Diego Jewelflower
	Caulanthus signifies	Payson's Caulanthus
	Ceanothus currentus	Buck Brush
	Counothus groggii	Cup-leaf-lilac
٩	Ceanothus lancoxlarmis	Chaparral Whitethorn
	Cheenactis artemisatoha	White Pincushion
	Cheonactis glabnuscula	Yellow Pincushion
	Clematis so.	Ctematis
	Collinsia concelor	Southern Chinese Houses
	Cordylanthus rigidus	Dark-Up Bird's Beak
	Coreopsis californica	California Coreopsis
	Corethrogyne Meginimus	Common Sand-aster
	Cryptontha sp.	Crystantha
	Cueurbita foctidissima	Calabazila
	Descurainia sp.	Tensy-mustard
	Dicunire chrysenthe	Golden Ear-drops
	Dichelostemma capitatum	Blue Dicks
	Ondieve sp.	Oud!eya
Ç	Emmenanthe pendulitera	Whispering Bells
187	Eriasing ap	Woolly-star
	Ericonioria so.	Goldenbush
	Erigeron folkosus	Lesty Dalsy
	Enodictyon Irichoculys	Hairy Yerba Sante
	Eriogonum fasciculatum	Inland California Buckwheat
	Eriogonum so.	Buckwheat
	Erlophyllum sp.	Golden-yarrow
-	Erodium cicularium*	Red-stern Storksbill
	Etysismum cepitelum	Wedern Walflower
	Eschschotzia californica	California Poppy
	Eucrypia chrysanthemifolia	Spotted Hidespeed
	Eulhomia occidentalia	and the second s
	Garrya vealchil	Western Goldenrod
	Glia sp.	Canyon Silk Tansel
	Gnephalium	Gilla
	Guillenin lesiophytta	Cudweed
	Guberrezia sarothrae	Catifornia Mustard
	Hallotropium curassavicum	Broom Matchweed
	renoutopium curassavicum Liirahfeidia incuna	Salt Hetiotrope
	THE RESERVE AND ADDRESS OF THE PARTY OF THE	Short-pod Musfard
	Lantoni amplexicable	Hentil
	Lasthenia gracilis	Common Goldfields
	Leyla glandulosa	White Leyla
	Lopidium sp.	Papperweed
	Linanihus bolius	Desert Reauty
	Linarithus dicholomus	Evening Snow
	Lonicera subspicata	Johnston's Honeysuckie
	Malacothrix californica	California Dandelion
	Malecollum clovelendii	Cleveland's Malacothrox
	Marati macrocarpus	Wiki-ducumber
	Mamublum vulgara*	Horehound
	Mehicaria matricarioides"	Common Pineappio weed
	Mentzella vealchiana	Veatch's Stick-leak
	Microsteris gracula	Slender Phlox
	Alknutus sp.	Monkeyflower
	Nemophila manasisti	Small flower Baby Blue Eyes
	Oroharetha bulbosa	Chaparral Broom-rape

2	Osmadarka Isnaila	Osmadehia
n	Paporta cultoruca	California Peony
4	Pectocarye sp	Pectocarya
C	PhaceVs sp.	Phace's
	Pholistomo membranacoum	White Fiesle Figwer
4	Plagiobothrys sp.	Popcomflower
1	Fishtago pategonics	Desert Plantain
6	Prelystomen californicus	Cream Cups
	Promus Berligha	Holly-last Cherry
	Rofinesquie nacmexicana	Desort Chicory
	Ribes quercetarum	Oak Goosebarry
^	Rompe nastudium-equaticum	Winter-crass
	Rose californica	California Rose
1	Sallingida australis	Southern Gilta
60	Senecio californicus	California Buttonveed
0	Senecia Recidus	Bullerwood
	Sidelicea malvautiono	Checker-bloom
CII-	Sisymbrium sp.	Tumble Mustard
	Solidago californica	California Goldenrod
9	Stachys stugoldes	Floripe nettle
	<i>Ѕгорћаполена</i> вр	Wreathplant
×		Southern Jewelflower
0	Stylockne gnephobokies	Everlasting Nest-strew
DE T	Tetredyrnia comosa	Callon-thorn
	Thysenocerpus sp	Fringepod
0	Trichostomino pensivi	Mountain Bluecurs
1	Tropidocerpum gracile	Stender Dobie-pod
'n	Uropappus lindley!	Sizvor Puffs
	Viola purpuroa	Oak Yellow Violet
1	SALES OF THE SALES	
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,	Other Flowering Plants:	
1	Lugines consumer	
3	Creatmenth & Intermed	le se
,i	Examen with	di.
a.	Phillips de states	0.1
	Congetanther Capital	*
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Rare Wildlife or Rare Plants: of to area 531005 EB 1106 1/4/106 60 45614 CON 1 h We Uso D. - 6 4 41361 10 - 0

Recorder MIKE COUFFER Add' Person: Project: Concentrix Solar Project Map #: - Survey Sxn: QCB Prolocol Survey # TMME (24 hour) Wind (ava/men) % CC Temp (F*): 63°F 3-7 7mp INQ HPS 08 charie drizzle perdire суетсам \$FROM## 62°F 1200 4->9 or Cocas drizzle DEICTY пункалей ethiower. 62°F 1300 41-> F 0 clear cultive overtos! drizzle showe: 1010F 0 1400 4-77 close drizzle OVER CAME Ministration of 1500 60°F 4-710 clear drieste **OVOCCON** aZtowen. drizelo clear OWOF Cals& BINOWN shows ovorcust. Habitat On-site (circle): open soils, hilltops, ridges, rock outcrops, soil crusts, clay soils, old roads, various nectar sources Total Total Nymphalidae (Brushfooted Butterflies) Hesperiidae (Skippers) Euphydryas editha (Quino Checkerspot) Erynnis funeralis (Funereal Duskywing) Euphydryas chalcedona (Henne's Checkerspot) Erynnis tristis (Sad Duskywing) Thessalia leanira (Wright's Checkerspot) Erynnis propertius (Propertius Duskywing) Chlosyne californica (California Patch) Erynnis brizo (Sleepy Duskeywing) Chlosyne gabbii (Gabb's Checkerspot) Pyrgus albascons (Checkered Skipper) Phyciodes mylitte (Mylitta Crescent) Hesperia jubia (Jubia Skipper) Junonia coenia (Common Buckeye) 4 Polites sebulati (Sandhii Skipper) Vanessa annabelle (West Coast Lady) Megathymidae (Glant Skippers) Venessa etalenta (Red Admiral) Megathymus yuccae (Yucca Giant Skipper) Vanessa cardul (Painted Ledy) Vanesse virginiensis (Virginia Ledy) Other Butterflies: Nymphalis celifornica (California Tortoiseshell) SACHEM Danaldae (Milkweed Butterflies) COMMON SCOTYWING Danaus plexippus (Monarch) Dansus gilippus (Queen) Satyridae (Satyrs) Coenonympha californica (Common California Ringlet) Pieridae (Whites, Sulphurs) Pieris rapae (Cabbage White) Pontia stsymbrli (Spring White) Pontia beckorli (Baker's White) Pantia protodice (Common White) Anthocharls sara (Sara Orangetip) Anthocharis cethura (Felder's Orangetip) Euchice hyantis (Desert Pearly Marble) Colias aurytheme (Orange Sulphur) Colias harfordri (Harford's Sulphur) Nathalis iole (Dainty Sulphur) Papilionidae (Swallowtails) Notes: Papilio polyxenes (Desert Black Swallowtail) MCWWOI Papilio surymedon (Pale swallowall) W WWOD Papilio rutulus(Western Tiger Swallowtail) mc www a Riodiniade (Metalmarks) Apodemia mormo (Behr's Metaknerk) Lycaenidae (Hairstreaks and Blues) Gelastrina tadon (Spring Azure) Leptotes marine (Marine Blue) Brephidium exile (Western Pygmy Blue) Gleucopsyche (ygdamus (Southern Blue/Silvery blue) Hemiargus ceraunus (Edward's Blue) Icaria acmon (Acmon Blue) 3 Philotes sonorensis (Sonoran Blue) Callophrys augustinus (Brown Elfin) Callophrys perplexa (Perplexing Green Hairstreak) Strymon mulinus (Gray Hairstreak) Atlides halesus (Great Purple Hairstreak)

otential Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar)

or. n. -0

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Nemophila menzoisa

Orobanche bulbosa

Please Place a Check Mark Beside Flowering Plants, Use Numbered Notes to Add Species Detail,

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC Collinsia concolor = CC Cord

45	Amsinckin menzlesit	Rancher's Fiddleneck
3	Antirrhimum coulterlanum	Coulter's Snapdragon
15	Antirhinam nuttalianum	Nultail's Snapdragon
. ;	Ascloples fascicularis	Narrow-leaf Mikwood
E .	Boschera sp.	Rock Cress
,	Calandii/Na ciliata	Red Maids
11	Calochorlus concolor	
	Calystegia tongipus	Golden-bowl Maripona Lih
di.	Camissonia so	Morning-glory
ė.	Costilloja exerta	Sun Cup
a.	Caulamitus heterophysius	Paintbrush
-1	Caulanthus Emplans	San Diego Jewellower
0	Coaraihus canosius	Payson's Caulanihus
2	Ceanothus greggii	Buck Brush
2	Ceanothus leucodernis	Cup-lest Hac
	Chaenaclis erlemislifolie	Chaparral Whitelhorn
		White Pincushion
	Chaeriactis glabriuscula	Yellow Placushion
e.	Clematis sp	Clematis
0	Collinsia concolor	Southern Chinese House
.7	Cordylanthus rigidus	Cark-Up Bird's Beak
Ö	Coreopsis californica	California Corsopsis
0	Corethrogyne fileginifelia	Common Sand-aster
6	Cryptantha sp	Cryptenina
Li .	Cucurbila foetidissima	Calabazillo
	Descursinia sp.	Tarsy-mustard
4	Dicentra chrysomna	Golden Ear-drops
fi.	Dichelosterima capitalism	Blue Dibles
4	Outleyu sp.	Dudloya
7	Emmenantile penduldera	Whispering Bells
1	Erinstrum sp	Woolly-ster
0	Ericamena sp.	Goldenbush
	Erigeron foliosus	Lealy Daioy
0	Eriodictyon trichiocatyx	Harry Yerba Sonta
	Eriogonum leseiculatum	Inland California Buckwhoa
, E	Еподопит вр.	Buckwheat
	Erlophyllium sp.	Golden-yarrow
1	Erodium cicularium*	
	Erysismum capitatum	Red-stem Storkabili
1	Eschscholzla catiomica	Western Wallflower
,		California Poppy
	Eucrypia chrysonthemicija Euthama oopdenigiis	Spotted Hidesend
,	_	Wastern Goldenrod
	Gaffya voolchii	Canyon Silk Tassel
- 3	GKin sp	. Gilla
-	Graphalium	Culdweed
	Guillania laslophylla	California Mustard
	Gulierrezia serollyde	Broom Matchwood
	Heliotropum curassavicum	Salt Heliotrope
	Hirshlekila inçana	Short-pod Musland
	Lamium amploxicade	Nenbit
	estrenie gracilis	Common Goldfields
2	Leyte glandulosn	White Layle
	t epidium sp.	Peoperweed
	Linenthus begus	Desert Beauty
-	Linenthus dicholomus	Evening Snow
-	onicoro subspicata	Johnston's Honeysuckie
	Malacollinix californica	California Dandelion
	Walacolfuti clavelandii	Cloveland's Matacothrib
	Marah macrocorpus	Wild-cucumber
	Marrubium vulgare*	
	Matricoria matricanoides*	Rorehound
	Mentzelia veetchisna	Common Pineapple weed
	Morosteris graculis	Veetch's Stick-look
		Slender Phlox
	rlimulus sp. Vermobiila menzois0	Monkeyflower

Small-flower Baby Blue Eyes

Сперати Вгоом-гара

Osmadenia tenetla	Osmadenia
Pagonia colfornica	California Peony
Pedacarys sp	Pedocarya
Phacota sp	Phacetia
Phohstome membranacoum	White Fiests Flower
Plaglobothrys sp.	Popcomflower
Plantago patagonica	Desort Plantain
Flatystemon californicus	Gream Cups
Francis Bicifolia	Holy-leaf Cherry
Rafinesquia ricomexicane	Desert Chicory
Ribes que toetorum	Osk Goosebany
Romipa nasturbum-oquaticum	Water-creas
Rosa californica	California Rose
Saltugiña australis	Southern G-lip
Senecio colfornicus	Colfornia Busterweed
Senecio flaccidus	Butterweed
Skłakceo malvouliora	Checker-broom
Sisymbrium sp	Tumble Mustard
Solidago californica	Cariforn a Goldenrod
Stacilys ojugoides	Hedge-rict/e
Stephanomena sp.	Wresthplant
Streptenthus compostris	Southern Jeworflower
Styloctine gnaphnhoides	Everlasting Nest straw
Tefradymia comosa	Collon-thorn
Пузалосегриз вр.	Fringepod
richoslemma parishfi	Mountain Bluecuts
Tropidocarpum gracile	Slander Dobie-pod
Iropappus tindloyl	Silver Puffs
fiola purpursa	Oak Yallow Violet
New York Control of the Control of t	The second second
OCCUPATION OF THE PROPERTY OF	
Other Flowering Plants:	
A Second	
the second second second	
are Wildlife or Rare Plonts:	
0.30	
111	

Project: Concentrix Sol	ar Project N	Map#: 7 Sun	rey \$xn:	QCB Protocol Survey # 3 of	5
TIME (24 hour)	Yemp (I-"):	Mind (avg/max)	% 60	Sky	
BLAN 0845 HES	60	1-72 mgu	Ø	patetry systems drazas shower	
0900 405	61	0-71	9	clook) patchy overcast dritzte shower	
LODO HOS	63	0-2	ø		
Commercial Service Consultation of the	66	0-12	B	dear) policity overcest druzz'e stigwer	
1100 HQ 5	68			cests palichy overcent crizate shows	_
1200425		98-74	De .	clea) patchy overcast diszde shower	
1300 HES	72	Ø-7.3	R	clear parchy overcall drizzle shower	
End (400 HRS	73	27-72	A	Clear) palithy overcast diszzie shower	
Habitat On-site (circle) open	soiled hilltops.	ridges (rock outcro		clay soils, old roads various nectar sources	
Name of the last o	n was made	\sim	Tota	The state of the s	Total
Nymphalidae (Brushfooted			500	Hesperlidae (Skippers)	
Euphydryss ediths (Quino (The second second second			Erynnis funeralis (Funereal Duskywing)	
Euphydryas chalcadona (He				Erynnis tristis (Sad Duskywing)	1.
Thessalia leanira (Wright's Chlosyne californica (Califo			-	Erynnis propertius (Propertius Duskywing) Erynnis bnzo (Sleepy Duskeywing)	4
Chlosyne gabbli (Gabb's Ch	the state of the s			Pyrgus albescens (Checkered Skipper)	-
Phyciodes mylitta (Mylitta C			_	Hesperia jubia (Jubia Skipper)	2.
Junonia coenia (Common B			5	Polites sabuleli (Sandhill Skipper)	2
Vanessa annabella (West C				Megathymidae (Giant Skippers)	~
Vanessa atalanta (Red Adm				Megathymus yuccae (Yucca Giant Skipper)	
Vanessa cardui (Painted La			- 1		
Vanessa virginiensis (Virgin				Other Butterflies:	
Nymphalis californica (Calif		shelf)		CALIFORNIA SONTYWING	13
Danaidae (Milkweed Butterl	lies)	-11-	75-4	SACHEM	3
Denaus plexippus (Monarch)			VANESSA SP.	2
Danaus gilippus (Queen)					
Satyridae (Satyrs)	F 7-395		Sec. 12		-
Coenonympha californice (C		omia Ringlet)			
Pleridae (Whites, Sulphurs)					
Pieris rapae (Cabbage White					
Pontie sisymbrii (Spring Wh					
Pontia backerii (Beker's Whi					
Pontia protodice (Common \	45.4		1		
Anthochens sera (Sara Oral					
Anthocharis cethura (Felder Euchkoa hyantis (Desert Pea			-		
Colles surytheme (Orange S			5		-
Colias harfordii (Harford's Se			_		_
Nathalis iole (Dainty Sulphar					
apilionidae (Swallowtalls)	- 1000	三二次 装件员	\$000 S	Notes:	
Papillo polyxenes (Desert Bi	ack Swallowta			END 1441 HOS, 71°F, WIND 1-5 MPH, CLEAR)	
Papilio eurymedon (Pale sw.		•	-	- In the party of the party created	
Papilio rutulus(Western Tige				MC3 MORTAR HINES (A SOUTHER GRINDSTONE	
Riodiniade (Metalmarks)	and the second	Viginia - 1		MCBJOI - B.T. JACKDASSIT	-
Apodemia mormo (Behr's M			98	Anchitota m	
yçaenidae (Hairstreaks and		NAME OF THE OWNER, THE	mires.	MCHLOI Honnes Lizaro	
Celastrina ladon (Spring Azu				MCWWOI WEITERN WHISTALL	
Leptotas marina (Marine Blu				Mc ww 02	
Brephidium exile (Western P		W		Mc ww 03	-
Glaucopsyche lygdamus (So	Andrew Control of the	silvery blue)		Mc NW 04	
Hemiergus ceraunus (Edwar	D'S BILLO)		-		
Icaria acmon (Acmon Blue)	Dius)		8		_
Philotes sonorensis (Sonoral		(เกษทุ)	1		-
Callophrys augustinus (Brow		(mtenuls)	1		
Callophrys perplexa (Perplex Strymon melinus (Gray Hairs		instreak)	1.		-

Instructions

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonico = PP

0	Amsinckia menziesii	Rancher's Fiddleneck
D.	Antirrhimum coulterlanum	Coulter's Snapdragon
Q.	Antimhinum nuttallianum	Nuttail's Snapdragon
0	Asclepias tasciculans	Nairow-leaf Milkwood
n s	Boechera sp.	Rock Cress
2	Calandrinia ciliata	Red Maids
1	Calochartus cancolar	Golden-bowl Mariposa Lily
7	Calystegia longipes	Morning-glory
330	Camissonia sp.	Sun Cup
,	Castilleja exerte	Paintbrush
5	Caulanthus heterophyllus	San Diego Jewelflower
	Caulanthus simulans	Payson's Caulanthus
5/3	Ceanothus cuneatus	Buck Brush
,	Ceanothus greggii	Cup-leaf-lilac
1	Ceanothus leucodermis	Chaparral Whitethorn
	Chaenactis artemisidolia	White Pincushion
1	Cheenactis glebriuscula	Yellow Pincushion
,	Clematis sp.	Clematis
	Collinsia concolor	Southern Chinese Houses
	Cordylanthus rigidus	Dark-tip Bird's Beak
13	Coreopsis californica	California Coreopsis
,	Corethrogyne filaginifolia	Common Send-aster
63	Cryptantha sp.)	Cryptantha
	Cucurbita foetidissima	Calabazilia
38	Descurainia sp.	Tansy-mustard
	Dicentra chrysentha	Golden Ear-drops
_	Dichelostemma capitatum	Blue Dicks
	Dudleye sp.	Dudleya
000	Emmenanthe pendulifera	Whispering Beils
	Erlastrum sp.	Woolly-star
130	Ericameria sp.	Goldenbush
-	Erigeron foliosus	Leafy Daisy
100	Enadictyon trichocalyx	Hairy Yerba Santa
	Eriogonum fasciculatum	Inland California Buckwheat
:	Erlogonum sp.	Buckwheat
	Eriophyllum sp.	Golden-yarrow
194	Erodium cicutarium*	Red-stem Starkshill
	Erysismum capitatum	Western Walflower
EZ.	Eschscholzia californica	California Poppy
-	Eucrypta chrysanthemifolia	Spotted Hidesped
2	Euthemia occidentalis	Western Goldenrod
-	Garrya vealchul	Canyon Silk Tassel
	Gille sp.	Gilla
1	Gnaphalium	Cudweed
	Guillenia tasiophylla	California Mustard
	Gutierrezia sarolhrae	Broom Matchweed
	Heliotropium curassavicum	Salt Heliotrope
	Hirshfeldia incana	Short-pod Mustard
	Lamium amplexicaule	Henbit
	Casthenia gracilis	Common Goldfields
	Lsyla glandulosa	White Layia
	Lepidium sp.	Pepperweed
	Linanthus bellus	Desert Beauty
	Linanthys dicholomus	Evening Snow
	Lonicera subspicata	Johnston's Honeysuckle
	Malacothrix californica	California Dandelion
:.]	Malacothrix develandir	Cleveland's Malacothrix
	Marah macrocarpus	
	маган macrocurpus Marrubium vulgare*	Wild cucumber Horehound
THE R.	Matricaria matricarioides*	
	Profit Cavia Manucationals	Common Pineapple-weed
	many from the company of the party of the pa	Vantable Chafe tests
	Mentzelia veetchlana	Vealch's Stick-leak
	Meritzelia veatchiana Microsteris gracilis	Slender Phlox
	Mentzelia veetchlana	And the second s

Csmadenia tenella	Osmadenia
Paeonia californica	California Peony
Pectocarya sp.	Pectocarya
Phacelia sp.	Phacella
Pholistoma membranaceum	White Fiesta Flower
Plagiobothrys sp.	Popcornflower
Plantago patagonica	Desert Plantain
Platystemon californicus	Cream Cups
Prunus ilicitalia	Holly-leaf Cherry
Rafinesquia neomexicana	Desert Chicory
Ribes quercetorum	Oak Gooseberry
Rompa nasturtium-aquaticum	Water-cress
Rosa cetifornica	California Rose
Selfugilia australis	Southern Guia
Senecio californicus	California Butterweed
Senecio fleccidus	Butterweed
Sidelcoe matveeflore	Checker-bloom
Sisymbrium sp.	Tumble Mustard
Solidego celifornice	California Goldenrod
Stachys ajugoides	Hedge-nettle
Stephanomeria sp.	Wreathplant
Streptanthus campestris	Southern Jewelflower
Stylocline gnaphalioides	Everlesting Nest-strew
Tetradymia comosa	Cotton-thorn
Thysanocarpus sp.	Fringepod
Trichostemma perishii	Mountain Bluecuris
Tropidocarpum gracile	Slender Dobie-pod
Uropappus lindieyi	Silver Puffs
Viola purpurea	Oak Yellow Violet
The second secon	
Other Flowering Plants:	
Rare Wildlife or Rare Plants:	
Other Flowering Plants: Rare Wildlife or Rare Plants:	
Rare Wildlife or Rare Plants:	
Rare Wildlife or Rare Plants:	

Projec	t. Concentrix So	lar Project M	ap#. 6 Sur	vay Sxn	OCB Pro	local Sur	vey#	3	of	5
-	TIME (24-hour)	Taxen (F*)	Wind (avg/max)	W 00			Sky		- 01	
Sten	1500 HRS	7105	1->5 MA	49	Calva	pancy	CAN COM	erazio	Strager	
	1600 HOS		08-92	10	Tree					
			2000			FELTER	2600001	9///lik	Uhrjug:	
					Clay	Distan	15/8/DOFF	duti	ACIDINA	
					(30)	boso.A	Outroom	the state	Your	
		-			Chin	saidly	TAGECRA1	dytale	Steel	
_					- Charge	priety	ownersi	SPACE &	USAN	
End					clear	palchy	overcent	at April	Vone	
Hobitat	On-site (circle) open	sous, harops, o	idges, rock outcro	ps. soil crusts	clay soils (old roads)	dirious no	ctar source			
Numah	slidae (Brushfooted	Dietharling		Total	The second secon					Tota
-	dryas editha (Quino			-	Hesperildae (Skip		1.00	-		
	dryas chelcodone (H		renati		Erynnia funeralia			(2)		_
	alia leanira (Wright's		rapoti		Erynnis tristis (S			Gire!		
	yne californica (Califo				Erynnis proportio	State of the Control	territoria de la companya della companya della companya de la companya della comp	wing)		-
	yne gubbii (Gaba's C			_	Ругана сомилил	Company of the Compan		4		-
	odes mylitta (Myatta C			-	Hospana Jubia (17	_	
	la coenia (Common E	The state of the s			Polites sebuleti (-
Vanes	sa annabelle (West C	Coast Lady		-	Megathymidae (G		and the control of th	-		-
Varies	sa ofalanta (Red Adn	nical)			Megathymus yud			ibaen		
Vanes	sa cardul (Painted L	ady)						-		
	sa virginiansis (Virgin				Other Butterflies:					
	talis californica (Cati	O'M STREET SHOWS AND ADDRESS OF THE PARTY OF	helly							
	to (Milkweed Butter)	manufacture of the second								
	s plaxippus (Monarch	1)								
	s gilippus (Queen)									
	e (Satyrs)		-	2001	1					
	nympha californica ((nia Ainglet)							
	(Whites, Sulphurs)			0.2						
	apas (Cabbage Whit									
The second second	zisymani (Spring Wh beckeni (Beker's Wh	The state of the s		-	-					
Control March	protodice (Common)	1 (8)		-	-	_				+
	haris sere (Sara Oral	Control of the contro		-	-	_				
	haris cethura (Feider				-	_			_	-
	Pyantis (Desert Per			3	-			_		-
	eurytheme (Orange S			- 0				-		+
Collas	harfordii (Harford's Si	ulphur)		1						+
Nathali	s lole (Dainty Sulphur)								+
apilion	dae (Swallowtalls)	10.5			Notes:					
	polyxenes (Desert Br	A COUNTY OF THE PARTY OF THE PA)		MC/DW	0.5	WEST	FON L	OHIPPAIL	"
	einymodon (Pale swi	and the last								
	rutulus(Western Tige	r Swallowtail)								1
	de (Metalmarks)			1.30						
and the state of the last	nin mormo (Behr's M			45						1
-	lae (Hairstreaks and									
	ne ladon (Spring Azu			_						
-	s manna(Marine Blue									
	lum exile (Western P osyche lygdamus (So	And in case of the last of the	niera blassi				_			-
	gus cereunus (Edwar		very cius)	-			_			1
	emon (Acmon Blue)	O & GIGAL		_				_		7
	sonorensis(Sonoran	Plont		-	-		_			-
	rys nugustinus (Brow	No. of the last of		-		_		_		1
	ys dumatorum (Perp		nicetreek l	-	-	_				-
THE REST LEGISLAND			en strengt)							100
	melinus (Gray Hairs	treak)		1						

Potential Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar)

Instructions

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

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Antirrhinum caulterianum = AC Collinsia concolor = CC Cardylanthus rigidus = CR Plantago patagonica = PP

Amsinckia menziesii	Rancher's Fiddleneck
Antirrhimum coulterianum	Coulter's Snapdragon
Antimhinum nuttallianum	Nuttall's Snapdragon
Asclepias fascicularis	Narrow-leaf Milloweed
Boechera sp.	Rock Cress
Calandrinia ciliata	Red Maids
Calochortus concolor	Golden-bowl Mariposa Lily
Calystegia longipes	Morning-glory
Camissonia sp.	Sun Cup
Castilleja exerta	Paintbrush
Caulanthus heterophyllus	San Diego Jewelflower
Caulanthus simulans	
Ceanothus cuneatus	Payson's Caulanthus
	Buck Brush
Ceanothus greggil	Cup-leaf-litac
Ceanothus leucodermis	Chaparral Whitethorn
Chaenaclis arlemisiifolia	White Pincushion
Chagnactis glabriuscula	Yellow Pincushion
Clematis sp.	C:omatis
Collinsia concolor	Southern Chinese Houses
Cordylanthus rigidus	Dark-tip Bird's Beak
Cornopsia californica	California Coreopsis
Corethrogyne filaginifolia	Common Sand-aster
Cryptantha sp.	Cryptantha
Cucurbita foetidissima	Calabazilla
Descurainia sp.	Tansy-mustard
Dicentra chrysantha	Golden Ear-drops
Dichelostemma capitatum	Blue Dicks
Dudleya sp.	Dudleya
Emmenanthe pendulifera	
Enindrum en	Whispering Bells
Eriastrum ap.	Woolly-star
Ericameria sp.	Goldenbush
Erigeron foliosus	Leafy Dalsy
Erlodictyon trichocalyx	Hairy Yerba Santa
Erlogonum fasciculatum	Inland California Buckwheat
Erlogonum sp.	Buckwheat
Eriophyllum sp.	Long-stem Golden-yarrow
Erodium cicutarium*	Red-stem Storksbill
Erysismum capitatum	Western Walthower
Eschscholzla californica	California Poppy
Eucrypta chrysanthemifolia	Spotted Hideseed
Eulhamia occidentalis	Western Goldenrod
Garrya veatchii	Canyon Silk Tassel
Gilla sp	CONTRACTOR OF PROPERTY OF
Gnaphalium	Cudweed
Guillerila lasiophylla	The second of th
	California Mustard
Gutierrezia sarothrae	Broom Matchweed
Heliotropium curassavicum	Salt Heliotrope
Hirshfeldia Incana	Short-pod Muslard
Lamium amplexicaule.	Henbit
Lasthenia gracilis	Common Goldfields
(Laylar glahdulosa)	White Layla
Lepidium sp.	Pepperweed
Linanthus bellus	Desert Beauty
Linanthus dichotomus	Evening Snow
Lonicera subspiceta	Johnston's Honeysuckle
Malacothrix californica	California Dandelion
Malacothrix clevelandii	Cleveland's Malacothrix
Marah macrocarpus	Wild-cucumber
Mamublum vulgare*	Horehound
Matricaria metricarioidos*	Common Pineapple-weed
Mentzelia vealchiana	Veaten's Stick-leak
Microsteris gracilis	Slender Phicx
Mimulus sp	Monkeyflower
Nemophila menzelsii	Small-flower Baby Blue Eyes
Orobanche bulbosa	The state of the s

Paecina californica Pectocarya sp. Phacelia	Osmedenia tenella	Osmadenia
Pectocarya sp. Phacelia sp. Phacelia sp. Phacelia sp. Plantago-patagonica Plantagonica Plantago-patagonica Plantagonica	Paeonia californica	THE RESIDENCE OF THE PARTY OF T
Phacelia sp. Phalistoma membranaceum Phalistoma Cream Cups Holly-leaf Cherry Desert Chicory Oak Gooseberry Water-cress California Rosa Southern Galia California Butterweed Checker-bloom Tumble Mustard California Goldenrod Hedge-nettle Wreathplant Southern Jewelflower Wreathplant Southern Jewelflower Wreathplant Southern Jewelflower Phalistoma membranaceum California Rosa Southern Galia California Rosa Southern Galia California Rosa Southern Galia California Butterweed Checker-bloom Tumble Mustard California Goldenrod Hedge-nettle Wreathplant Southern Jewelflower Everlasting Nest-straw Cotton-thorn Fringepod Mountain Blueduria Slender Doble-pod Golde purpuro Oak Yelow Violet California Rosa Southern Galia California Butterweed Checker-bloom Tumble Mustard California Butterweed Southern Galia California Butterweed Checker-bloom Tumble Mustard California C	Pectocarya sp.	
Polisioma membranaceum Plagiobothrys spi Parriago patagonica Playstemon californicus Playstem Cuclory Oak Gooseberry Water-cress Southern Gilia California Butterweed California Butterweed Playstemed California Ruse Playstemed Playstemed California Ruse Playstemed Playstem	Phacelia sp.	
Pagiobothrys sp Partago patagonics Playstemon californicus Prunus licitolia Refinesquie neomexicana Ribos quercetorum Rosa californica Refinesquie neomexicana Ribos quercetorum Rosa californica Refinesquie neomexicana Rosa californica Refinesquie austrelis Renecio californicus Refinesquie austrelis Refinesquie austrelis Renecio californicus Refinesquie austrelis Refinesquie aus	Pholistoma membranaceum	
Plantago-patagonica Plantagonica Plantago-patagonica Plantagonica Plantagonic	Plaglobothrys ap.	
Interview of the Plants: Interview of the Plants Interview of	Plantago patagonica	
Trunus licifolia Tedinesquis neomexicana Tedinesquis Tedinesquis n	Platystemon californicus	
interior presentation aquaticum (origina riastuntum aquaticum aqua	Prunus ilicifolia	
California Rase California Butterweed California Butterweed California Butterweed California Butterweed California Goldenrod California Butterweed Checker-bloom Tumble Mustard California Goldenrod California Butterweed Checker-bloom Tumble Mustard California Butterweed California Butterweed Checker-bloom Tumble Mustard California Butterweed California Butt	Refinesquie neomexicana	
California Rose California Rose California Rose California Rose California Rose California Rose California Butterweed California Rose California	Ribes quercetorum	
California Rosa Southern Gija California Butterweed Southern Gija California Butterweed Sutterweed Sutterweed Sutterweed Sutterweed Checker-bloom Turrible Mustard California Goldenrod Lacinys ajugoides Lephanomeria sp. Literatinus campestris Lylocline gnaphalioides Lerratymia comosa Lorosa Lorosampus sp. Literatymia comosa Lorosampus irroleyi Lola purpuroa Liter Flowering Plants: California Rosa Southern Gija Checker-bloom Turrible Mustard California Goldenrod California Goldenrod Ledge-nettle Wreathplant Southern Jewelflower Everlasting Nest-strew Cotton-thorn Fringepod Mountain Bluegurla Slender Doble-pod Silver Puffs Oak Yellow Violat California Rosa California Rosa Ledge-nettle Wreathplant Southern Jewelflower Everlasting Nest-strew Cotton-thorn Fringepod Mountain Bluegurla Slender Doble-pod Silver Puffs Oak Yellow Violat California Butterweed Checker-bloom Turrible Mustard California Checker-bloom Turrible Mustard California Californ	Rompa mastunium-aquaticum	
altugilia australis enecio californicus snacio flaccidus indelea malveeflora isymbrium sp. olidago californica tachys ajugoides tephanomeria sp. treptantnus campestrs tylochne gnaphalioides enercio processorio de la comosa nysanocarpus sp. richostemma parishil ropidocarpum gracile ropappus lindleyi ola purpuroa ther Flowering Plants: Southern Gilia California Butterweed Checker-bloom Tumble Mustard California Goldenrod Hedge-nettle Wreathplant Southern Javelflover Everlasting Nest-straw Cotton-thorn Fringepod Mountain Blueguris Siender Dobie-pod Silver Puffs Oak Yellow Violat The Wildlife or Rare Plants:	Rosa californica	
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Projec	ct: Concentrix S	Solar Project	Map #: 6 Sur	vey 5xn:	OCB Protocol Survey # 3 of	5
	TIME (24 hour)	Toma (F*):	Wind (avolmax)	% CC	Sky	
Start	0000	606	1->5 MPH	05	clear patchy overcost chickle shower	
	1000	70	1->10	0	Coar policky overtast trizzle shower	
	1100	71	7⇒10	0		
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					clear petchy overcast drizzle shower	
					clear patchy (yescant driggle shower	
					c'ear pulcity overcast drizzle shower	
End				_	clear patchy overcant drizzle shower	
Habitat	On-site (circle); ep	en solle, hilltops	ridges, rock outcro	pa, soil crusts,	clay soils, old roads, various necter sources)	
			\sim	Total		Total
of Artistance Control	nalldae (Brushfoot	The second of th			Hesperiidae (Skippers)	
	ydryas editha (Quin				Erynnis luneralis (Funereal Duskywing)	
	ydryas chałcedona				Erynnis tristis (Sad Duskywing)	
	salia leanira (Wright				Erynnis propertius (Propertius Duskywing)	
	syne californice (Cal				Erynnis brizo (Sleepy Duskeywing)	
	yne gabbii (Gabb's				Pyrgus albascans (Checkered Skipper)	
	odes mylitta (Mylitta			-	Hesperia jubia (Jubia Skipper)	
	nia coenia (Commo				Politos sabulati (Sandhill Skipper)	
	ssa annabella (Wes				Megathymidae (Glant Skippers)	
	ssa etalente (Red A				Megathymus yuccae (Yucca Giant Skipper)	
	ssa cardui (Painted				-0	
	ssa virginiensis (Virg		ich a Mi	_	Other Butterflies:	
	halis colifornica (C		snell)			100
	ae (Milkweed Butt			100	The same is	
	us plexippus (Mona			-		
	us gilippus (Queen) ae (Satyrs)			55 728		
And the second second	onympha californica	(Common Calif	emia Dinatati	40		-
	e (Whites, Sulphur		oma rengieti	-		-
The second second	rapae (Cabbage W	Control of the Contro		(March)		
	sisymbrii (Spring V					
	beckeni (Beker's V					-
	protodice (Commo					-
	charis sara (Sara O					-
	charis cethura (Feld					
	on hyantis (Desert F			1		-
	eurytheme (Orange			1		-
	harlordii (Harlord's			-		+
	is role (Dainty Sulp)			_		+
	idae (Swallowtalls		N FASSING		Notes:	100
Charles and Company of the Company o	polyxenes (Desert	Section 19 and 1	ein		MCBSO! JACKRASBIT	88
	eurymedon (Pale s				MC82090	1
	rululus(Western Ti				THERWAD	+
Riodinla	ide (Metalmarks)	THE HILL MEN	是宣告的	3.63	-	
	mia mormo (Behr's		The state of the s	48		
	dae (Hairstreaks a			1000		-
	rina ladon (Spring A	77.000.000				1
	es manne (Marine E					
_	dium exite (Western					
	psyche lygdamus (silvery blue)			
	rgus cereunus (Edw					
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	s sonorensis (Sono					1
	hrys augustinus (Bri					
	hrys perpiexa (Perp		Irstreak)			
	n melinus (Gray Ha					-
Strymo	STATES OF LANDING	H-Straduly				

Potential Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar)

Instructions:

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

Amsinckia menziesii	Rancher's Fiddleneck
Antirchimum coulterianum	Coulter's Snapdragon
Antirrhinum nuttallianum	Nuttail's Snapdragon
Asclepias fascicularis	Narrow-leaf Milkweed
Boechera sp	Rock Cress
Celengrinia cillata	Red Maids
Calochortus concolor	Golden-bowl Mariposa Lily
Calystegia longipes	Morning-glory
Carnissonia sp.	Sun Cup
Castilleja exerta	Paintbrush
Caulanthus heterophyllus	San Diego Jewelflower
Caulanthus simulans	Payson's Caularthus
Ceanothus cuneatus	Buck Brush
Ceanothus greggli	Cup-leaf-lilac
Ceanothus leucodermis	Chaparral Whitethorn
Chaenactis ertemistifatte	White Pincushion
Chaenactis glabriuscula	Yellow Pincushion
Clematis sp.	Clematis
Collinsia concolor	
	Southern Chinese Houses
Cordylanthus rigidus	Dark-tip Bird's Beak
Coreopsis californica	California Coreopsis
Corethrogyne fileginifolia	Common Sand-aster
Cryplantha sp	Cryptantha
Cucurbita foetidissima	Calabazilla
Descurainia sp.	Tansy-mustard
Dicentra chrysantha	Golden Ear-drops
Dichelostemma capitatum	Blue Dicks
Dudleya sp.	Dudleya
Emmenanthe pendulifers	Whispering Bells
Eriastrum sp.	Woolly-star
Ericameria sp.	Goldenbush
Erigeron foliosus	Leafy Daisy
Eriodictyon trichocalyx	Hairy Yerba Santa
Eriogonum fasciculatum	Idland Galifornia Buckwheat
THE PROPERTY OF THE PROPERTY O	
Enogonum sp	Suckwheat.
Erlophyllum sp.	Golden-yarrow
Erodium cicutarium*	Red-stem Stotksbill
Erysismum capitatum	Western Wallflower
Eschscholzia californica	California Poppy
Eucrypta chrysanthemifolia	Spotted Hidesecd
Euthemia occidentalis	Western Goldenrod
Garrya veatchii	Canyon Silk Tassel
Gilia sp.	
Gnaphalium	Cudweed
Guillania lasiophylla	California Mustard
Gullerrezia serothree	Broom Matchwead
Heliotropium curassavicum	Salt Heliotrope
Hirshfeldia Incana	Short-pod Mustard
Lamium amplexicaule	Henbit
	The state of the s
Lasthenia gracilis	Common Goldfields
Layia glandelosa	White Layla
Lepidium sp.	Pepperweed
Linenthus bellus	Desert Beauty
Linanthus dicholomus	Evening Snow
Lonicera subspicata	Johnston's Honeysuckle
Matacothrix catifornica	California Dandelion
Malacothax clevelandii	Cleveland's Malacothrix
Marah macrocarpus	Wild-cucumber
Marrubium vulgare*	Horehound
Matricaria matricariaidas*	The state of the s
THE WAR STREET, MICHIGAN PROPERTY AND ADDRESS OF THE PARTY.	Common Pineapple-weed
Mentzella vealchiana	Veatch's Stick-leak
Microsteris gracilis	Slande: Phlox
Mimulus sp.	Monkeyflower
Nemophila menzeisii	Small-flower Baby Blue Eyes
rvernopriva menzeisii	Dinor notice base bine by

Chaparral Broom-rape

Orobanche bulbosa

O.	Osmadenia tenella	Osmadenia
0	. Paecnia californica	California Peony
0	Pectocarya sp.	Pectocarya
b	Phacelia sp.	Phacelia
0	Pholistoma membranaceum	White Fiesta Flower
0	Plagiobothrys sp.	Popcomflower
0	Plantage patagonica	Desert Plantain
0	Platystemon californicus	Cream Cups
U	Pronus ilicifolia	Holly-leaf Cherry
0	Rafinesquia neomexicana	Desert Chicory
0	Ribes quercetarum	Oak Gooseberry
0	Rorripa nasturtium-aquaticum	Water cress
0	Rosa californica	Catifornia Rose
0	Sallugilia australis	Southern Gilia
0	Senecio celifornicus	California Butterweed
0	Senecio flaccidus	Butterweed
U	Sidelcee malvaellora	Checker-bloom
٥.	Sisymbrium sp.	Tumble Mustard
O	Solidago californica	California Goldenrod
0	Stachys ajugoides	Hedge-nettle
0	Stephanomeria sp.	Wreathplant
0	Streptanthus campestris	Southern Jewelflower
0	Stylocline gnaphalioides	Everlasting Nest-straw
84	Tetradymia comosa	Cotton-thorn
0	Thysanocarpus sp.	Fringepod
0	Trichostemma parishii	Mountain Bluecurls
0	Tropidocarpum gracile	Slender Dobie-pod
œ.	Uropappus lindleyi	Silver Puffs
0	Viola purpurea	Oak Yellow Violet
Ò.	The million of the te	AND
_		

Other Flowering Plants:

Rare Wildlife or Rare Plants:

M Breaker, William B. D. a. a. a. bre

Projec	t: Concentrix Sc	lar Project	ua F :# qaN	rvey Sx	rn: L	QCB Pro	tocol Sur	vey#	4	of	5
	TIME (24-hour)	Temp (F1:	Wind (avg/ma)	%:	cc			Sky	,		
Start	1100 H25	3200)	Ø~> ዛ ሰንያዘ	25	5%	close	(patchy)	overcast	drizzie	about 1	
	1200 HRS	68	W-zetmen	1			-			shower	
				_	_	Clear	pelchy	overcest	drozie	shower	_
_	1300 425	770	8-> Zmily		0%	clear	(paichy)	overcnat	drizzio	shower	
_	1400 HEC	71	8º15mM	70	%	clear	patchy	(overcast)	drizzle	shower	
						clear	patchy	overcast	drigalu	shower	
					-	close	poichy	overcast	drizzle	shower	
End					-						
	On-site (pircle): appl	n soils hilltons	tidges' rock outer	nos sol	Loniste	clay soils, old roads,	palchy various no	overcast octor equires	drizzie	showo'	
				000, 001	Total	citty sons, qid roada,	various ne	octar source	9		Total
	nalidae (Brushfoote		5	SE- 10-1		Hesperildae (Ski			- 31		1
	ydryas oditha (Quino					Erynnis funerals			9)		
	ydryas chalcedona (I					Erynnis tristis (S					
	salia leanira (Wright's					Erynnis properti			ving)		ಎ
	syne californica (Calif					Erynnis brizo (S					
	syne gabbii (Gabb's C			-		Pyrigus elbescer			r)		
	lodes mylitta (Mylitta				4	Hesperia jubia (.					1.5
	nia coenia (Common				7	Polites sabuleti					
	ssa annabella (West			- 1		Megathymidae (C					
	ssa atelenta (Red Ad					Megathymus yu	ссве (Уис	xca Giant Sk	ipper)		
	sse cardul (Painted I										
	ssa virginionsis (Virgi	**	-t-16			Other Butterflies			25 W = 1		
	ohalis californica (Ca		eshell)		_	VANESSA ST					ス:
	lae (Milkweed Butte	Colored Distriction of the Colored Col									
	us plexippus (Monard	in)									
	us gilippus (Queen)	75				-					
	ae (Satyrs) onympha californica	(C	to the state of th	-18		-	_				
	e (Whites, Sulphurs		ornia Ringlet)	-	-						
	rapac (Cabbage Wh			- J.							
	sisymbrii (Spring W				-						
	beckerii (Beker's W				-	_	_				
	protodice (Common			-	-			_			-
	churis sara (Sara Or			-	_						200
_	charis celhure (Felde				_			_	_		
	oe hyantis (Desert Po							_	_		
	eurytheme (Orange						_				-
	harfordii (Harford's			-	_			_			-
_	itis iole (Dainty Sulph			-	-		_		_		-
	nidae (Swallowtails)			-		Notes:		- 11			-
	o polyxenes (Desert I		all)			Mcwwol		Wester			-
	o eurymedon (Pale s					Mrmmogr		Age 31 F.	11	Mil.	
Papili	o rutulus(Western Tig	er Swallowtait)			Mcmmo3			,	-	
Riodini	ade (Metalmarks)	S-15-15-15-15-15-15-15-15-15-15-15-15-15-	The state of the s			mc6361.			_	ACHANSSIT	
Apode	mia mormo (Behr's I	Metalmark)			25	MCHLOI		HOLNI			
	idae (Hairstreaks ar		2000		-,5	171 177 207		777315441	12116	TRIA	
Celas	trina ladon (Spring A:	zure)						_			
Leplo	les merina (Marine B	lue)									
	nreteeM) elixe mulbl										
	opsyche lygdamus (S		Silvery blue)	-							
	irgus cerevnus (Edw					4					
	ecmon (Acmon Blue)				-1						
	es sonorensis (Sonor				-						
Callop	hrys augustinus (Bro	wm Elfin)									
Callop	hrys perplexa (Perpl		airstreak)								
Strym	on molinus (Gray Hai s halesus (Great Purp				_						

antial Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar) .. uctions

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC Collinsia concolor = CC Cordvianthus rigidus = CR Plantago patagonica = PP

-	Antirrhinum coulterianum	= AC Collinsia cancalar = CC	Cordylani	thus rigidus = CR Plantago p	otagonico = PP
_					
G	Amsinckla menziesti	Rancher's Fiddleneck	13	Osmadenia tenella	Osmadenia
	Antirchtmum coulterlanum	Coulter's Snapdragon	D	Pagonia californica	California Peoply
r	Antirhinum nuttalfatium	Nutteifa Shapdragon	13	Pectocarya sp.	Pectocarya
	Asciepias fascivularis	Narrow-loaf Milkweed	1/2	Phacelia sp.	Phacelia
	Boechera sp	Rock Cress	- 1	Pholisiome membranaceum	White Flesia Flower
	Colondania citata	Red Maids	00	Plagiobothrys sp	Popcomflower
	Calochortus concolor	Golden-bowl Moriposa Lily	100		
	Calystogia longipes	Morning-glory	0	Plantago patagonica	Desort Plantain
	Camissonia sp	Sun Cub	0.0	Platystemon colifornicus	Cream Cupe
		Paintorush	0.	Prunus dicitolla	Holly-leaf Cherry
	Castilleja exerta		3	Rafinesquia noomexicana	Desert Chicary
	Caulanthus huterophytius	San Diego Jewelflower	- 0	Ribes quercelarum	Dak Gooseberry
	Caulanthus simulans	Payson's Caulanthus	. 0	Rompo nastyrtium-aquaticum	Water-cress
	Ceanothus cuneolus	Book Brush	0	Rosa caldomica	California Rose
	Coenathus gruggii	Cup-leaf-lilac	0	Soltunika australis	Southern Gilla
	Ceanothus leucodernus	Chaparral Whitethorn		Senecio valifornicus	California Butterweed
	Chaenactis erternistitoës	White Pincushion	0	Sonecio flaccidus	Butterweed
	Chaenaciis glabriuscula	Yallow Pincushion	- 4	Sidalcea malvactiona	
	Clematis sp.	Clematia			Checker-bloom
	Callinsia concolor	21-21111111-2	0	Sisymbnum sp.	Tumbia Mustard
		Southern Chinese Houses	0	Solidago californica	California Goldenrod
	Cordylanthus rigidus	Dark-tip Bird's Beak	- G	Stachys ajugoides	Hedge-nottle
	Corpopsis cellfornics	Celifornia Coreopsia	L!	Staphanomerie sp.	Wreathplant
	Corethiogyne filaginifolia	Common Sand-aster	EI	Streplanthus compostris	Southern Jawelliams
	Cryptanthe sp.	Cryptantha		Stylockine gnaphelioides	Everlasting Nest-stra
	Cucurbita foetidissimo	Calabazilla	- 2	Tolradymia comosa	Cetton-thorn
	Descursing sp.	Tansy-mustard	7	Thysenocarpus sp.	
	Dicentra chrysantha	Golden Ear-drops			Fringepod
	Dichelostemma capitatum	Blue Dicks	43	Trichostemme perishli	Mountain Bluecuris
			- 0	Tropidocarpum gracile	Slander Dobie-pod
	Dindeys sp	Oudleya	6	Uropappus lindleyl	Silver Puffs
	Emmenanthe pendutitere	Whispering Bells	0	Viola purpurea	Oak Yellow Violet
	Eriastrum sp	Woolly-star	100		
	Ericomeria sp.	Goldenbush	G.		
	Engeron foliosus	Leady Dalsy	9	Other Flowering Plants:	
	Eriodictyon trichocalyx	Hairy Yerba Sania		One; Flowering Funds:	
	Enogonum fescientatum	Inland California Buckwheat	10		
	Erlogonum sp.	Buckwheat	-0		
			2.1		
	Eriophyllum sp.	Golden-yarrow	1,3		
	Erodium cicutarium*	Red-stem Storksbill	15		
	Erysismum capitalum	Western Walflower	۵.		
	Eschscholzia californica	California Poppy	8		
	Eucrypta chrysanthumitolin	Spotted Hidesood	1		
	Euthamia occidentalia	Western Goldenrod	р	Rare Wildlife or Rare Plants:	
	Gartya voatchil	Canyon Sik Tassel		real of relative by real type	
	Gilia sp.	Gia	110		
	Gnaphalium	Cudweed	- U		
			1.0		
	Guidlania tasiophylla	California Mustard	- 0		
	Gulierrezia sarothrae	Broom Motchweed	19		
	Heliotropium curassavicum	Salt Heliotrope	i ii		
	Hirshfeldia incana	Short-pod Mustary	. n		
	Lamium amplexicaule	Hentik	Ti.		
¢	Lastheala gracilis	Common Goldheids	Live State		
	Tayia glendulosa	White Layia			
	Lepidium sp.		L1		
	Linanthus belies	Pepperwood	16		
		Desert Beauty	- 11		
	Linanthus dicholomus	Evening Snow	230		
	Lonicere subspicele	Johnston's Honeysuckle	71		
	Malacothrix cattornica	California Dandelion	d1		
	Melacothrus clavolandii	Cieveland's Malagothrix	0		
	Merch mecrocarpus	Wild-cucumber	51		
	Marniblem vulgare*	Harehound			
	Matricaria mutricanoidos'		- 0		
		Common Pineapple-weed	9		
	Mentzelio vealchiena	Veatch's Stick-teak	- 64		
	Microsteris gracilis	Slander Phlox	40		- t
	Mimulus sp.	Monkeyflower	4		1
	Nonophila menzelsii	Small-flower Baby Blue Eyes	- 43		
	Orobsecho bulbosa	Charles December 1			

Chaperral Broom-rape

Orobancha bulbosa

Projec	t: Concentrix Sol	ar Project	Map#: 6 Sur	vey Sxn;	B	QCB Pro	tocol St	rvey#	4	of	5
	TIME (24-hour)	Temp (F*):	Mind (syc/mex)	% CC				Sky			
Start	0930 HDS	64°F	3->6MPH	5%		clear	patchy	overcast	tirizzia	shower	
	1000 HRS	71	0-3 MPH	5%		clear	putchy	overcost	drizzia	shower	
	1100 HQS	73	Ø-> 5 mgH	5%	-	Cloar			0.7		
	1145 405	75°	5->41MOH	0			patchy	OWNERS	ririzzle	shower	_
	TI CLINES		12 Titles	~		clear	patchy	evercust	dozzie	shower	_
					_	canor	petchy	overcast	drizzie	shown	_
					-	0800	potchy	overbast	4:2%	shower	
End						tolean	petchy	rwyrcani	drizzlo	shower	
Habitat	On-site (circle): open	sõjis, hilltops	ridges, rock outcre	ps, soil crusts,	clay soi	ils, old roads	various n	ectar sour	008		
Nymph	alldae (Brushfooted	Butterflies		Total		periidae (Ski)	nnore)				Tola
	vdryas editha (Quino (75"			ynnis funeralis	Address of the second	al Duebo	loo)	200	-
	rdryas chalcedona (He		(erspot)	-		yrınıs tristis (S			ang)	_	-
	alia leanira (Wright's					ynnis properti			vwina)		1
	yne californica (Califo					ynnis brizo (Si			.,1194	-	+ •
	yno gabbii (Gabb's Ch					rgus elbescer			per)		
	odes mylitta (Mylitta C					asporia jubia (.					
	ia coenia (Common B			1		ildos sabuleti (
	sa annabella (West C					athymidae (G					
	sa alalanta (Red Adm				Me	agathymus yu	ccae (Yu	cca Grant	Skipper)		
	es cardui (Painted Le										
	sa virginiensis (Virgin halis californica (Calif		nahalb		-	er Butterflies:		702			
	ie (Milkweed Butterf		esneny			M MOD SO					1
	is plexippus (Monarch				C	HECKERSF	OT 2	Υ	_		
	is gilippus (Queen)	-		-	1		_				-
	ae (Satyrs)	T. E. I.		1000	1		_	_	_		+
Coenc	onympha californica (C	Common Calif	form's Ringlet)								-
Plerida	(Whites, Sulphurs)	anne - de-	F1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -								
	rapae (Cabbage Whit										
	sisymbrii (Spring Wh										
	beckerii (Beker's Whi										
	protodice (Common)										
	charls sura (Sara Orar										
	charis cethura (Felder De hyantis (Desert Pea				1						
	ourytheme (Orange S			_	-		_				-
	harfordii (Harford's Si				-						-
	is lole (Dainty Sulphur	1980,0071138			_		_				
	idae (Swallowtalls)	-			Note	18:	-019	T-20	1000		-
	polyxenes (Desert Bl		ail)		2000	2000					
	eurymedon (Pale swi										1
	rululus(Wastern Tige	r Swallowtei	l)								
1	de (Metalmarks)										
	mia mormo (Behr's M			105							
	dae (Hairstreaks and rina ladon (Spring Azu	March 2006 P. St. Physical Co.	25-6-1-3								
	es marina (Marine Blu			1				_			
	dium exile (Western P				-		_				-
Glauce	psyche lygdamus (So	outhern Blue!	Silvery blue)		-			_			-
	gus ceraunus (Edwar		- Many Grany	-	1		_				+
	стоп (Acmon Blue)			5	1						-
	s sonorensis (Sonora	n Blue)								_	-
Callopl	rys augustinus (Brow	n Elfin)		- 11-11-1							1
	brys perplexa (Perplex		airstreak)								1
	n melinus (Gray Hairs										
Atlides	halesus (Great Purple	e Hairstreak)									

lease Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail

Antirchinum coulterianum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

Amsinchia menzlesii	Rencher's Fidelerleck
Antirchimum coulterian	
Antatioum outlationum	Nuttail's Snapdragon
Aschopios foscicularis	Narrow-leaf Mikweed
Reachers so.	Rock Cress
Calandrinia ciliata	Red Maids
Calochorfus concolor	Golden-bowl Mariposa Lity
Calystegla longipes	Marning-glory
Comissorile sp.	Son Cup
Castilleja exerte	Palathrush
Caulanthus heterophyllus	San Diego Jewalflower
Caulenthus simulans	Payson's Caulanthus
Ceanothus cuneque	Buck British
Ceanothus greggii Ceanothus leucodomic	Cup-leaf-litac
Ceanothus leucodermis Cheonactis artemisidota	Chaparral Whitethorn
	White Pincushion
Chāenecits glabriuşcula Clemabs sp	Yellow Pincushion
Collinsia concolor	Clemetis
	Southern Chinese Houses
Companie asidemica	Dark-tip Bird's Book
Coreopsis californice	California Coreopsis
Corethrogyne Slagfnifola	Common Sand-aster
Cryptantha sp. Cucurbita foetidissima	Cryptanthe
Cacurania sp.	Calabazilia
	Tansy-mustard
Dicentra chrysenthe Dicheloslamma capitalum	Golden Ear-drops
Бистеховитта свравант Филтеуа вр	
	Dudleya
Emmenanthe pendulilera	Whispering Botts
Eriastrum ep Ericameria ep.	Woolly-star
Engeron Iohosus	Goldenbush
	Leafy Daisy
Eriodictyon trichocalyx Eriogonum fasciculatum	Hairy Yorks Senta
Eriogonum restriction Eriogonum sp.	Inland California Buckwheel Buckwheat
Eriophyllum sp.	
Endrum cicularium*	Golden-yarrow Red-stent Storksb:l/
Erysismum cepitatum	Western Washower
Eschscholzia californica	California Poppy
Escrischorza cautomica Eucrysta chrysanthemiloti	
Euthamio occidentalis	Western Goldenrod
Garrya veatcha	Canyon Sik Tassel
Glia sp	Gilia
Gnophakum	Cudweed
Glállenia losiophytia	California Mustard
Gulierrezia sarottirga	
Haliotropium curassavicur	Steen Malchweed
manonopium gurassayıçır Hirshfeldin incena	Sett Heliotrope Short-pod Mustard
Lamium amplexicaula	Henbit
Lasthenia gracilis	
Layra glandulosa	Common Goldfields
Lepidium sp.	White Layle
Litrenthus hellus	Pepperweed Descri Beauty
Linantius dicholomus	-
	Evening Snow
Louisoro subspicala Malacolbox californica	Johnston's Honeysuckie
Malacothrux californica	California Dandelion
Malacothrix olevelandii	Cleveland's Maincothrix
Marah Macrocarpus	Wild-cucumber
Morrubium vulgare*	Horehound
Molricaria matricanoides*	Common Pineapplo-weed
Mentzelle vestchiano	Veatch's Stick-leak
Microsteris granitis	Slender Phlox
Mimulus sp.	Monkeyflower
Nomophila monzeusi	Small-flower Daby Blue Eye
Orobancha bulbosa:	Chaparral Broom-cape

77	Osmadenia lenallo	Osmadenia
-	Perconia californica	California Peony
Ç.	Pedoceryasp	Pediotorys
1	Phucella sp.	Phacells
.7	Pholisioma mombranaceum	White Fleste Flower
11	Ptaglobolinys sp.	Poppornflower
)	Plantago palagonica	Desert Plantain
0	Platystemon colifornicus	Cream Cups
-	Prunus iliçifolia	Holly-feaf Cherry
7	Rafinosquie neomexicene	Desert Chicory
	Ribes quercetorum	Oak Gooseberry
>	Ronips nosturtum-equaticum	Water-crass
	Rose californice	Celifornia Rose
-	Saltuyliia australiz	Southern Glüs
ı	Sonocio californicus	California Butterweed
)	Senecio itaccidus	Butterwend
b	Sidelces malvaeffort	Checker-bloom
)	Sisymbolum sp.	Tumble Mustard
1	Solidago cultomico	California Goldanrod
	Stuchys ejugoides	Hedga-neltie
	Stephanomeria sp.	Wreathplant
	Streptanthus compositis	Southarn Jewelflower
1	Stylocline gnapholioides	Everlasting Nest-straw
	Tolrodymia comosa	Cotton-thorn
	7hysanocarpus sp.	Fringepod
)	Trichoslemma parishu	Mountain Bluecoris
1	Tropidocarpum gracile	Slander Doose-pod
1	Uropappus lindleyl	Sitver Puffs
,	Viola purpurea	Oak Yellow Violet
(CATAUS CUATA	
	Other Flowering Plants;	
	A 05 0	

Rare Wildlife or Rare Plants:

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Chaparral Broom-rape

Orobancho bulbosa:

roje	ct: Concentrix S	olar Project - A	/ap#: Sur	vey Sxn	:_ 1	CCB Protocol Survey # 5 of	5
	TIME (24-hour)	Temp (F"):	Mind (Evg/mex)	% C	c	Sky	
Start	OROCHRS	73°F	177 mph	9	7	clost patchy overcast druzale shower	
	1000 HRS	8405	Ø-> 2	0	>		
	1100 HRS	244E	Pal	0	-	9	
	1200 HRS	39°F	3-210	0		9	_
					-	clear parichy overcast drizzle shower	_
	1300 HES	88°€	1-15	_2		ries pulchy overcest drizzle shower	
	1900 Hes	79ºF	3-710	_0	-	coary patchy overcust drizzle shower	
End	1500HRS	80°F	4⇒ 10	0		prear patchy overcast orizzle shower	
Habita	t On-site (circle), ope	n soils hilltops,	ridges, rock outers	DK soll	crusta.x	day solia. Old roads (various nectar sources)	
	V			-00-01	Total		Tota
All the second	halidae (Brushfoote	Christian Park College College	SHOULD HAVE	117	_	Hésperiidae (Skippers)	
_	hydryas editha (Quino		***	-	_	Erynnis funeralis (Funereal Duskywing)	
	hydryas chalcedona (ssalia leanira (Wright		eus bot)	-		Erynnis Iristle (Sad Duskywing)	_
	syne celifornica (Cali			-		Erynnis propertius (Propertius Duskywing)	97
	syne gabbii (Gabb's			-	_	Erynnis briza (Sisepy Duskeywing)	-
	syne gabbii (Gabb s siodes mylitta (Mylitta			-	_	Pyrgus albescens (Checkered Skipper)	1
	nia coenia (Common			-	- 17	Hesperia jub a (Jubie Skipper)	
	essa ennabella (Viesi			-	_11	Polites sabuleti (Sandhill Skipper)	
	SSS atalanta (Red A			-	_	Megathymidae (Glant Skippers)	
	ssa cardul (Painted			-	4	Megathymus yuccae (Yucca Glant Skipper)	
	ssa virginiensis (Virg			-	_	Other Butterflies:	
	phails californica (Ci	The state of the s	eheift	-			-
	dae (Milkweed Butte			NAME OF TAXABLE PARTY.		PHOLISORE CATULUS (Common Scottwine)	
	sus plexipous (Monar		Contract Contract Contract	BY/GOSS		WESTERN TRICED BLUE	-
	aus gilippus (Queen)	411)					-
	dae (Satyrs)		at examination of	586540			
	nonympha cellfornica			100			
	e (Whites, Sulphur			SHAN			-
Piert	rapae (Cabbage W	hite)	STORY OF STREET	O'UNIVERSE	_		
	ia sisymbrii (Spring V		-				
	ia beckeril (Beker's V		-				-
Pont	le protodice (Commo	n White)			4		-
Anth	ocharis sara (Sara Or	rangetip)			1	77	
Anth	ocharis cethura (Feld	er's Orangetip)			-		
Euch	loe hyantis (Desert P	early Marble)					
	s eurytheme (Orange				SV.		-
Colle	s harfordii (Harford's	Sulphur)			6		
	alis iale (Dainty Sulph				1.		
Papilic	midae (Swallowtails)		A		Notes:	
Papil	lo polyxenes (Desert	Black Swallowt	all)				
	io eurymedon (Pale s						-
	io rutulus(Western Ti						
Riodin	lade (Metalmarks)		· 10 年(1000)	100			
	lemia mormo (Behr's				135		
	ridae (Halrstreaks a		WHITE THE	ALCONOMICS.			
	strine ledon (Spring A			(1)		T-1	
Leplo	iles marina (Marine E	Blue)					
	hidium exile (Western			2	-		
	copsyche lygdamus (CONTRACTOR AND ADDRESS OF THE PARTY OF THE P	Silvery blue)		1		
	argus cerevnus (Edv						
	acmon (Acmon Blue				ų		
	les sonorensis (Sono						
	phrys eugustinus (Br						
	phrys perplexa (Perp		urstreak)				
		Location Co. Co.					
	non melinus (Gray Ha es halesus (Great Pur						

Instructions:

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC, Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonico = PP

-	4-4-4-	
0	Amsinckia menziesii	Rancher's Fiddleneck
	Antirrhimum coulterianum	Coulter's Snapdragon
۰.	Antimhinum nuttellianum	Nuttall's Snapdragon
9	Asclepias fascicularis	Narrow-leaf Millowaed
٥	Boschera sp.	Rock Cress
°.	Calendrinia ciliata	Red Malds
. 0	Calochortus concolor	Golden-bowl Mariposa Lily
¢.	Calystegia longipes	Merning-glory
D	Camissonia sp.	Sun Cup
0.	Castilleja exerta	Paintbrush
O	Caulanthus heterophyllus	San Diego Jewelflower
О.	Caulanthus simulans	Payson's Caulanthus
•:	Ceanothus cuneatus	Buck Brush I
	Ceanothus greggii	Cup-leaf-Nac
ο.	: Cesnothus leucodermis	Chapatral Whitethorn
a	Cheenactis artemisüfolia	White Pincushlon
9	Cheenactis glebriuscule	Yellow Pincushion (2014)
. 0	Clemetis sp.	Clematis
0		Southern Chinese Houses
0	Cordylanthus rigidus	Dark-tip Bird's Beak
0 (California Coreopsis
0	Corethrogyne filaginifolia	Common Sand-aster
0-	Cryptantha sp.)	Cryptantha
0	Cucurbita foetidissima	Calabazilla
0	Descurainia sp.	Tansy-mustard
0	Dicentra chrysantha	Golden Ear-drops
٥	Dichelostemma capitatum	Blue Dicks
0	Dudleye sp.	Dudleya
D	Emmenenthe pendulifers	Whispering Bells
0	Erlestrum sp.	Woolly-star
0	(Ericamenta sp.)	Goldenbush
0	Erigeron foliosus	Leafy Dalsy
0	Erlodictyon trichocalyx	Hairy Yerba Santa
Q	Erlogonum fasciculatum	mland California Buckwheat
O	Enogonum sp.	Buckwheat
0	Eriophyllum sp.	Golden-yarrow
0	Erodium cicutarium*	Red-stem Storksbill
0	Erysismum capitalum	Western Wallflower
0	Eschscholzia californica	California Poppy
a .	Eucrypta chrysanthemifolie	Spotted Hideseed
0.0	Euthamia occidentalis	Western Goldenrod
0	Garrya vealchil	Canyon Silk Tassel
D	Gilia ap.	Gilia
0	Gnaphalium	Cudweed
٥	Guillenia lasiophylla	California Mustard
0	Gutierrezia sarothrae	Broom Matchweed
a".	Heliotropium curassavicum	Salt Heliotrope
0	Hirshfeldia incana	Short-pod Mustard
o	Lamium amplexicaule	
0 1	Lasthenia gracilis	Common Goldfields
0 1	Layia glandulosa	White Layle
0	Lepidium sp.	Pepperweed
0	Linanthus bellus	Desert Beauty
0	Linanthus dicholomus	Evening Snow
0	L'onicere subspicate	Johnston's Honeysuckie
٥	Melacothrix californice	California Dandellon
o'	Melecothrix clevelandli	Cleveland's Malacothrix
0	Marah macrocarpus	Wild-cucumber
0.	Marrubium vulgare*	Horehound
9	Matricarie matricarioldes*	Common Pincapple-wood
0.	Mentzelia ventchiana	Veatch's Stick-leak
9	Microsteria gracilis	Slender Phlox
0 :	Minulus sp.	Monkeyflower
0	Nemophila menzeisii	Small-flower Baby Blue Eyes
0	Orobanche bulbosa	
700	Creative Daily 34	Chaparral Broom-rape

			atogonico = PP
-	Osmadenia tenella		Osmadenia
D	Pasonia californica		California Peony
D .	Pecfocerye sp.		Pectocarya
	Phacelle sp.		Phacelia
	Pholistoma membra		
0	LANGE RECOLUMN THE PROPERTY AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON	- C. 10: 42 Later - CO.	White Fiests Flower
0	Plagiobothrys sp.	Collaboration of the Collabora	Popcornflower
0	Plantago patagoni		Desert Plantain
0	Platystemon califon	nicus	Cream Cups
0	Prunus Ilicifolia	Mark Strangers	Holly-leaf Cherry
Co		Department of the last	
	Rafinesquia neome.	xicana	Desert Chicory
	Ribes quercelorum	-	Oak Gooseberry
0 .	Rompa nasturtium-	aquaticum	Water-cress
0	Rose californica		California Rose
ģ	Saltugilla australia		Southern Gilla
p	Senecio californicus		
		MINISTERNA PARTIES	California Butterweed
	Senecio flaccidus	STATE OF THE STATE OF	Butterweed
)	Sidalcea malvaeflor	0	Checker-bloom
3	Sisymbrium sp.		Tumble Mustard
	Solidago californica		California Goldenrod
	Stachys ajugoides		
		man that begin	Hedge-nettle
	Stephanomeria sp.	CONTRACTOR OF THE PERSON OF TH	Wreathplant
9	Streptanthus campe	stris	Southern Jewelflower
0	Stylocline gnaphalic	ides	Everlasting Nest-straw
5738	Tetradymia comosa		Cotton-thorn
0	Thysanocarpus sp.	planteren and Hillian	
Figure 15.		www.eneganien	Fringepod
941	Trichostemma paris		Mountain Bluecuris
9	Tropidocarpum grad	ile	Slender Doble-pod
3	Uropappus lindleyl	营养组,	Silver Puffs
	Viola purpurea	Economic Contraction	Oak Yellow Violet
SIN.	SENSONAL PROCESS DESCRIPTION	DESCRIPTION OF THE PROPERTY OF	Heriotamora i doministra di 1900
	CANADO CONTRACTOR STATE OF THE PARTY OF THE	Walter State World Br	Control of the Party of the Par
° /	RHUS OVAT	Property.	SUGAR BUSH
	rija na sstyr sj	to design and	an and this organis, sharing
3	or the best of	3-16-17	Jan 1994 Propins of the Carl
rder	FOR THE REAL PROPERTY.	and thousand the	GOOD TO SEE STATE OF THE PARTY
11/10	HE PER STORY	STREET, SHOWN	to the first of the property of
-	Rare Wildlife or Re	re Plenta:	RED-TAKED HAWKHEST
9	and the second s		
o Y	MC RITHE HEST	Hijw	LADDE WHITE NESTLING
Y	ncriha nest	With	LARGE WHITE NESTLING
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Y	WCBZOS WCBZOI UCBIHH HERL	with Bra	CK-TAHED JACKRASSIT
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Y	W C 82 G 3 W C 82 G 5 W C 82 G / W C 81 HB H <i>E</i> 21	BG	CK-TANEO JACKUADAIT
Y Y	WSMMOT WS203 WS205 WS205 WS20/ WS20/	BG	CK-TANAD JACKRADIT
Y Y	WC MMOS WC B263 WC B263 WC B265 WC B265	BG	THE WESTER WHISTAL
2 Y	WC MM 03 WC B2 03 WC B2 03 WC B2 03 WC B2 03	BG	TI BERTAN COSTESSION DE TATORIO D
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Y	Wemmod	CONST	CK-TAHCO SACKADAIT
9 Y	WCMMOS	CONST	THE STEAM CONTRACTOR
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2	WCMM // WCMMOS	CONST	THE STEAM CONTRACTOR
	WCMM // WCMMOS	CONST	THE STEAM CONTRACTOR

Quino Checkerspot Butterfly Prot_{0c0}) Survey — Field Data Sheet

Reco	der: Marg	ie Mull	_Add'l Person:		Date: 5.2.11	G	PS Unit :_	persona
Proje			Map #: 7 Sur	vey Sxn:		6	of	5
	TIME (24-hour)	Tomp (F*);	- 11	w.cc	Sky			
Start	0900	640	4-8 (13)	- 4				
	1200	MAGE	4-11 (13	8		drizzła	SHOWE:	
		14	(1)		polichte overcass	drivs M	dylicand.	
		-		-	clear palchy overcast	drizzin	shower	
_					riese patchy evercess	drtzzle	showed	
					clear pulchy overcast	drizzle	shower	
					close policity overcass	drtz/ki	ahowen	
End							27.274.00	
_	On site (circle) And	en poile billione	didana rack autors	The state of	ay soils, old roads, various nectar sources	drizzia	shower	
Timbre	On-Site (Circie), (Ope	OH BUILT, MARINES	noges, rock outers	Total	ay soils, old roads, various nexter sources	>		Total
Nympi	nalidae (Brushfoote	ed Butterflies)	The part of	1000	Hesperiidae (Skippers)		C- 25	1 Otal
	ydryas odithe (Quin		12.1		Erynnis funeralis (Funereal Duskywing)			
	ydryas chalcedona i		erspot)		Erynnis Iristis (Sad Duskywing)			
	salla leanira (Wright				Erynnis propertius (Propertius Duskywin	a)	_	1 7O
	syne californica (Cal				Erynnis brizo (Sleepy Duskeywing)	37		10
Chia	syne gabbii (Gabb's	Checkerspot)			Pyrgus albescens (Checkered Skipper)			_
Phyc	lodos mylitta (Mylitta	Crescent)			Hesperia jubia (Jubia Skipper)			$\overline{}$
	nia coenia (Commor			100	Polites sabulati (Sandhill Skipper)			
	ssa annabella (Wes			10	Megathymidae (Glant Skippers)			
Vane	ssa atalanta (Red A	dmiral)			Mogathymus yuccae (Yucca Giant Skipp	er)		
Vana	ssa cardui (Painted	Lady)				_		
Vane	ssa virginiensis (Virg	ginia Lady)			Other Butterfiles:	1000		
Nym	phalis californica (C:	alifornia Tortoise	shelf)					
Danaid	iae (Milkweed Butte	erflies)						
Dans	us plexippus (Monai	rch)	Marine Land					
	us gilippus (Queen)		70.00	- (
Satyric	lae (Satyrs)	101		Crisian I				
	onympha californica		ornia Ringlet)					
Pierida	e (Whites, Sulphur	rs)	(In the second					
Pieris	rapse (Cabbage W	hite)						
Ponti	a <i>sisymbrii</i> (Spring V	Vhite)						
	a beckerii (Beker'ş V	Contract of the Contract of th						
	a protodice (Commo							
	xcharis sara (Sara O							
	ocharis cethura (Félo			- 10				
	los hyantis (Desert F							
	s eurythome (Orang							
	s harfordil (Harford's	Management and American Street, Street						
	<i>viis lol</i> e (Dainty Sulpi		-					
Papillo	nidae (Swallowtails	9)	200		Notes:	- 15		
	o polyxenes (Desert		ail)					
	io eurymedon (Pale							
	o <i>rutulus</i> (Western T:)					
	lade (Metalmarks)			100				
	emia mormo (Behr's			10				
	idae (Hairstreaks a	The second secon		DIE!				
	trina ladon (Spring /		_	- 10				
	los marina (Marine I							
	nidium exile (Westen		Clinama Indiana					
	copsyche lygdamus (alivery title)					
	ergüs ceraunus (Edv			100				
	acmon (Acmon Blue			III Ve	2			
	os sonorensis (Sono							
	phrys augustinus (Be		- least a set					
	phrys perplexa (Perp		airstreak)	-				
	on melinus (Gray H.			-				
Alixa	s halosus (Great Pu	rpie nairstreak)						

remain rectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar)

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail. PLEASE RECORD HOST PLANTS ON GPS See Codes Below.

Antirrhinum coulterianum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

Antirrhinum coulten	ianum = A(
> Amsinckia menniosii	
Antirrhimum coulterian	B
Antirrhinum nuttallianum	
ASCIODING Inscirulturia	N
* Boechera sp.	N
Calandritia ciliata	R
Calochortus concolor	R
Calystegia longipus	G
> Comissaria sp.	Mo
Castilleja exerta	Su
 Guatanthus haterophylles 	Pa
 Cautanitus sinulans 	Sa
Geanothus cunantus	Pa
Coanglhus groggii	Bu
 Ceanothus leucodennis 	Cur
Channetis ariemizatolia	Chi
X Chaenachs glubriuscula	Wh
" Clomutis sp	Yoll
Collinsia concolor	Cler
- Cordylanthus rigidus	Sou
> Coreopsis chillomica	Dari
Corethrogytie filoginifolia	Calif
Cryptantha sp.	Com
 Cocurbita foetidissima 	Cryp
> Descurainia sp.	Cota
" Dicentra chrysniitha	Tanı
Dichelostemma capitatum	Golde
- Dudleya sp	Blue
- Emmenanthe pendulifirta	Dudte
Eriastrum sp.	White
➤ Ericomeria sp.	Wooli
Engiron foliosus	Golde
Eriodictyon trichocallys	Leafy
Erlogonum Insciculation	Harry '
e Enogonum sp.	Inland
X Eriophyllum sp	Buckw
> Erodium cicutarium*	Golder
6 Erysismum capitatum	Red-st
Eschscholzia californica	Wester
Eucrypta chrysanthomitalin	Californ
a Euthamia occidentalis	Spotted
Carrya voatchii	Wester
W Gilia sp	Canyon
o Gnaphalium	Gilla
Gullienia lasioptrytia	Cudwee
Gutierrezia sarothrae	Californ
Heliotropium curassavicum	Broom I
Hirshfeldin menna	Salt Hol
Lumium amploxicania	Short-po
Lasthema graciós	Henbit
✓ Layia glandulosa	Common
Lepicium sp.	White La
Linanthus bellus	Pepperw
Linanthus dichotomus	Desert B
Lanicera subspicata	Evening :
Malacethrix californics	Johnston
Malacothrix glovelanda	California
Marah macrocurpus	Cleveland
Mamubium vulgare*	Wild-cucu
Matricaria matricanoldos+	Harehoun
Mentzelia veatchiana	Common I
Microstoris concilie	Vealch's S

Microsteris gracilis

Nemophila menzelsii

Orobanche bulbosa

Minutus sp. and and

Rancher's Fiddleneck Coulter's Snapdragon Nuttail's Snapdragon Varrow-leaf Mickweed Rock Cress Red Maids Solden-bawl Mariposii Lily Aorning-glory un Cup ainthrush an Diego Jewelflower ayson's Caylanthus uck Brush up-leaf illac hapamil Whitethorn /hite Pincushlori allow Pincushlan ematis outhern Chinese Houses ark-tip Bird's Beak afifornia Coreopsia errmon Sand-aster yptantha dabazilla ansy-mustard olden Ear-dreps ie Dicks Idleya hispering Balts cally-star denbush aty Daisy kry Yorba Santa and California Buckwhoat ckwheat Iden-yarrow d-stem Storksbill stern Wallflower Ifornia Poppy otted Hideseed stern Goldenrod yon Sik Tassel beowb Ifomia Mustard orn Matchymed t Heliotrope ort-pod Mustard ranon Goldfields to Layin perweed ert Beauty ning Snow nston's Honeysuckle fornia Dandellorr eland's Matacothrix f-cucumber chound mon Pineapple-weed Veralch's Stick-lenk Stender Philox Monkeyflower Small-flower Baby Blue Eyea Chaparmi Broom-rape

Osmadenia tenella Osmadenia Pagonia californica California Peony Pectocurya sp. Pectocarya Phocelia sp. Phacelia Pholistoma membranaceus) White Flesta Flower Plagiobothrys sp. Popcomflower Plantago palagonica Desort Plantain Platystemon californicus Cream Cups Prunus Ilicitolia Holly-leaf Cherry Refinesquia neomexicana Desert Chicary Ribes quercetorum Oak Gooseberry Rorripa nasturtium-aquaticum Water-cress Rose galifornica California Rose Salteryllin nustralia Southern Gilla Senecio californicus California Butterwood Sunecio llaccidus Butterweed Sidnices matvaetions Checker-bloom Sisymbrium sp. Tumble Mustard Solidago californica California Goldenroa - 0 Stactive ajugaidos Hedge-nottle in Stophanomeria so. Wreathplant 6 Streptanthus campestris Southern Jewelflower Stylocline gnaphalioides Evertasting Nest-straw P Tetradymia comosa Cotton-them Thysanocarpus sp. Fringepod Trichosternma parishir Mountain Bluecuria Tropidocarpum gracilo Slender Doble-pad Uropappus lindleyt Silver Puffs Viola purpurua Oak Yeslow Violet rà 10 Other Flowering Plants; Pen of mon clevelandii Minulus quantitions willo Mingula Rare Wildlife or Rare Plants: Pentagramma triangularis rebugani MMPTOIAM-07 Baston class mimulus quantiques aridus MUMADWARD 01-03 adagmestiona streptantinus compostis MMS601-02 Horn Li Lard MMHLDI Lueson saxosa MMESOL

Linuatus bottos

	1)	Add'l Person:	-	Oate: May & GPS Unit	
Project: Concentrix S	olar Project	Map #: + Surv	rey Sxn:	+ QCB Protocol Survey # Shrve Cot	5
TIME (24-hour)	Femp (F*):	Wind (avo(max)	% CC	Sky	
81an 8:50	64	4-8(7)3) G	(clear) patchy overcast delezie shower	
3,20	72	4)-9(13)	جھت	(Blow) peachy overcost drizzle shower	
12 20	74	8-10(18	165	8	
	1	6 1000	,		
				clear patchy overcest drizzle slavvo:	
				clies palchy overcast drizzle shower	
3.00	-			clear putchy overcast drizzio shower	
End (3) - 20(3				cear gatchy owngraw directs strayor	
Habitat On-site (circle): op	en soils, hilltops,	ridges, rock outcro	ps, soil crusts,	clay soils, old roads, various nectar sources	
Nymphalldae (Brushfoot	ad Distantian)	w. bweek	Total		Total
Euphydryss edithe (Quin				Hesperiidae (Skippers)	-
Euphydryas chalcedona		ersooth		Erynnis funeralis (Funereal Duskywing) Erynnis tristis (Sad Duskywing)	
Thesselie leenira (Wright				Erynnis propertius (Propertius Duskywing)	a
Chlosyne californica (Cal				Erynnis brizo (Sleepy Duskeywing)	X
Chlosyne gabbii (Gabb's		-		Pyrgus albescens (Checkered Sk pper)	-
Phyciodes mylitta (Mylitta			-	Hesperia Jubia (Jubia Skipper)	-
Junonia coenia (Commo			1	Politics sabulati (Sandhill Skipper)	-
Vanessa annabella (Wes			-	Megathymidae (Giant Skippers)	1
Vanessa atalanta (Red A				Megathymus yuccae (Yucca Giant Skipper)	-
Vanessa cardul (Painted				maganymas yasana (Tasan Sant Grappu)	
Vanessa virginiensis (Vir	ginta Lady)			Other Butterflies	-
Nymphalis californica (C		eshell)			
Danaidae (Milkweed Butt	erflies)		200		
Danaus plexippus (Mana	rch)	4			1
Danaus gilippus (Queen)					
Satyridae (Satyrs)	1 to 1 to 1	- 16			
Coenonympha californica	(Common Calif	fornia Ringlet)			
Pleridae (Whites, Sulphur	rs)				
Plens rapae (Cabbage W					
Pontia sisymbrii (Spring V	Vhite)				
Pontia beckerli (Beker's V					
Pantia protodice (Commo			40		
Anthocharis sera (Sara O			A		
Anthochans cethure (Fek					
Euchke hyantis (Desert F	and the state of t				
Colles eurythemo (Orang					
Colias harfordii (Harford's					-
Nutralis iolo (Dainty Sulp				Trees	ir -
Papillonidae (Swallowtai):	Contract to the second		NC.	Notes:	-
Pepilio polyxenes (Desert Pepilio eurymedon (Pale:		an)		26MAOIAS Minulus aus	por a
Papillo rutulus(Western T		1	-	ans	un
Riodiniade (Metalmarks)	ger Swarrowtail	V	oneto.	11 - 12	
Apodemia mormo (Behr's	MetalmodAII			(got windy)	
ycaenidae (Hairstreaks a			1	14)	
Celestrina ladon (Spring /			1000	V	
Leptoles marina (Marine I					-
Brephidium exile (Western			_		
Glaucopsyche lygdamus		Silvery hire)			
Hemiargus cereurus (Edv		enrary bleet	-		
toaria ecmon (Aomon Blue					
Philotes sonorensis (Sono			-		
Cellophrys augustinus (Br					
		rivetses (-)			
Céllophrys perblexa (Pero	ACVIIIA PIOCII LI				
Cellophrys perplexa (Perp Strymon melinus (Gray Ha		ansireanj	_		-

auntial Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar) auctions.

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Details

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Cordylanthus rigidus = CR Plantaga putaganica = PP

Amsinckie menziesii	Rancher's Fiddleneck
Antirrhimum coulterlanum	Coulter's Snapdragon
Antiminum nullationum	Nullall's Snapdragon
Asclepias fascicularis	Namow-real Milloweed
Soechere sp.	Rock Crees
Calendrinia citiato	Red Mads
Celochortus concelur	
Calystegia longipes	Golden-bowl Maniposa Lily
Camissonia sp.	Morning-glory
Castillate annuals	Sun Gup
Castilleja exerta	Paintbrush
Caulanthus beforephylus	Sen Diego Jewesflower
Caulanthus simulans	Payson's Caulaniaus
Coanothus cimeatus	Buck Brush
Cuantitus greggii	Cup leaf-illac
Coanothus leucodernus	Chaparral Whitethorn
Chaenactis artemistifolia	White Procushion
Chaenactis glabriuscula	Yellow Pincushion
Clematis sp.	Crematis
Collinsia concolor	Southern Chinese Houses
Cordylanthus rigidus	Dark-Up Bird's Beak
Coreopsis colifornica	Californie Coreopaia
Corethrogyne filaginitolia	
Cryplaniha sp	Common Sand-asiar
Cucurbita foetidissina	Cryptantha
Characteristics of	Calabazilla
Descurelnia sp	Tensy mustard
Dicentra chrysantha	Golden Ext-Grops
Dicholostemme capdahum	Blue Dicks
Dintleya sp	Dadleya
Emmenanthe pendulifera	Whosening Bells
Eriastrum sp.	Woolly-star
Ericameria sp.	Goldenbush
Engeron foliosus	Leafy Daisy
Eriodictyon trichocalyx Junet	William Varies Caste
Eriogonum fasciculatum	Inland California Buckwheat
Erloganum sp.	Buckwheat
Eriophyllum sp.	
Eroclium cicularium*	Galden-yartow
Erysismum capitalum	Rod-alem Storksball
	Western Warsower
Eschscholzia californica	Catifornia Poppy
Eucrypia chrysanthamilolia	Spotled Hideseed
Eidhamla ecuidantalis	Western Goldenred
Sarrya veolotia	Conyon Silk Tassel
Salia sp.	Gdia
Snaphalium	Cudwood
Sulfonia loslophylla	Celifornia Mustard
Sutremezia serottime	Broom Mutchweed
lallotropium curassavicum	Sat Helictrope
firshfuldly Incens	Short-ood Wustard
amitta amplexicação	
astrenu gracilis	Hanbit Common Duly and
ayla plendidosa	Common Goldfields
	White Laylo
epidum ep.	Papperweed
Inantique hollus	Desert Beauty
tranthus dicholomus	Evening Snow
omoern subspicate	Johnston's Honeysuckie
lalacothrir nationnica	California Dandelion
Miscollum clevelandii	Cloveland's Metacothrix
feren macrocarpus	Wild-eveninger
fanybium vulgare '	Horshound
fatricoria matricannigos"	Common Pineapple weed
fontzella vealchiano	Ventch's Shok-leak
licrosteris gracitis	
firmulus sp.	Shonder Palex
	Monkeyflower
omophila menzelsii	Small-flower Baby Blue Byes
CARL STORY OF THE	and the second s

Chaparral Broom-rape

Orobanche bulbosa

	Osmudenia tenetta	Osmadania
	A	
43	Paeonia celifornice	Colifornia Papny Selkusti
	Pecifocaryo sp.	Poctocarya CONVC
,	Phacella sp.	Phacelia
	Pholistoma membranceuns	116
		While Flesta Flower 26 1501
	Plaglobothrys sp.	Popcontflower
	Plantago palagonica	Desert Plantein
	Plalystemon californicus	Cream Cups
	Prunus Boilein	United to Copy
		Holly-leaf Cherry Tolloun
	Relinasquie neomexicane	Desert Chicary / DO //
	Ribas querovicrum	Oak Government
	Rompa nasturtium-aquaticum	Water-trace SRM UIT
	Rosa californica	Contractor C.
		Curronia Rosa
	Sedugita austrolis	Southern Gdia Al Minimuland
_	Sentido californicas	California Butterwood Living Street
	Senacio flaccidus	Posts and a second
	Sidalova matynellom	4600 41.741
		Checker-bloom
	Sisymonium sp.	Tumble Musterd 287140
	Schlago californian	California Goldeniad
1	Stachys ajugordes	Hedge-nettle significant
	S/ophavomens sp	
		Wreathplant
, 1	Streplanthus compositis	Southern Jewelflower Pentry &
. :	Styloctina gnaphalioidea	Etierlandlan Most state
-	Totradymia comosu	Catter than
	Тһувалосягриз вр.	rringepad
	Trichosterima penshii	Mountain Bluecuris 2 (3 p + 02)
7	ropidocarpum gracila	Stender Doble-pod
- 1	Impapijus tindeyi	Sover Puffs
	Угова ригригеа	Oak Yellow Violet
		440
04-	Other Flowering Plants:	end riow 12:0
nu-	-	end now 12:0
nu-	-	end MOON 1210
04-	-	end MOON 1210
D4-	-	end MOON 12:0
04-	sh winds	end 1150 N 1210
04-	-	end 1100,N 12:0
04-	sh winds	end 1100N 1210
04-	sh winds	end 1100,N 1210 ary survey
14	sh winds	end MORN 1210 and Survey 12.20
M	sh winds	end MOIN 1210 and Survey 12.20 Elidphill
14	sh winds	213 Server 12.20 Elidp11.41
14	sh winds	213 Server 12.20 Elidp11.41
04-	sh winds	end MOIN 1210 and Survey 12.20 Elidphill Ebdy HAZ
04-	sh winds	213 Server 12.20 Elidp11.41
04-	sh winds	213 Server 12.20 Elidp11.41
04-	sh winds	213 Server 12.20 Elidp11.41
04-	sh winds	213 Server 12.20 Elidp11.41
14	sh winds	213 Server 12.20 Elidp11.41
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04-	sh winds	213 Server 12.20 Elidp11.41
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14	sh winds	213 Server 12.20 Elidp11.41
04-	sh winds	213 Server 12.20 Elidp11.41
14	Start Bot Start Bot Start Bot Bot Bot Bot Bot Bot Bot Bot Bot At EBJ BOT At EBJ BOT At	213 Server 12.20 Elidp11.41
04-	Start Bot Start Bot Start Bot Bot Bot Bot Bot Bot Bot Bot Bot At EBJ BOT At EBJ BOT At	213 Server 12.20 Elidp11.41
14	sh winds	213 Server 12.20 Elidp11.41
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14	Start Bot Start Bot Start Bot Bot Post Start EBJ POST AT EBJ POST AT	213 Server 12.20 Elidp11.41
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Recorder Margie			-	Date: 5.3.11 GPS Unit: 7
Project: Concentrix S	olar Project	Map#: 7 Su	rvey Sxn.	0. 3 till
TAKE (24 hour)	Temp (F*):	Wind (avg/max)		QCB Protocol Survey # 6 of 5
31 met 0900	750	2-5	W CC	Stry
1130	78*	3-6	0	(clear) polichy numbers
177 0 -	800	3 11 >	0	Client) makety
1500		2-4 >	0	Carry Michael Michael
500	830	2-4	0	SHIZZE MIGNAY
		-		And the stone
	7			clear patchy overcest strizzle straver
End				cing polity receipt
Habitat On-site (circle): oper	solls, hilltops,	idaes fork nules	Tak Kan	its, clay soils old roads various nectar sources
Nymphalldag / Project		Sacrificon Dutois	To	its, clay soils old roads various nectar sources
Nymphalidae (Brushfooted	Butterflies)		10	
Euphydryas editha (Quino Euphydryas chalanda	Checkerspot)			Hesperiidae (Skippers) Total
Euphydryas chalcedona (H Thessalie leanira (Wright's	enne's Checker	spot)		Erynnis funeralis (Funereal Duskywing)
Chlosyne californica (Califo	Checkerspot)			Erynnis tristis (Sad Duskywing) Erynnis propertius (Press till)
Cantosyne gapbii (Gabble Ci	ameles and a Miles			Erynnis propertius (Prepertius Duskywing) Erynnis brizo (Sleepy Duskeywing)
Try violes mylitta (Mylitta C	rapposit			Pyrgus albecens (Checkered Skipper)
vurionia coonia (Common E	ALAS I MARIE V			riespena Judia China Skienes
* arrossa annabella (Mest C	pant Land		-1	POMAS Sahulati (Constituti or
variossa atalanta (Red Adm	frail			megatriymidae (Giant Skinnere)
Various Cardui (Painted La	et a)			Megathymus yuccae (Yucca Giant Skipper)
Venessa virginiensis (Virgini	a Local a			
rymphans cantomics that	Same to the same	elli		Other Butterflies:
- whitewas (milkweed Bullorft	oel		-	
Deneus plexippus (Monarch)				
Danaus gilippus (Queen)			-	
Satyridae (Satyrs)	\$ 435 N.P.	E ASSET	050	
Coenonympha californica (Co Pleridae (Whites, Sulphurs)	mmon Californi	a Ringlet)	-	
Pieris rapae (Cabbage White)		TOTAL DES		
Pontia sisymbril (Spring White			-	
Pontia beckerii (Reker's White)		1	
Pontia protodica (Common W)		林林	
Anthocharis sam (Sera Oreno	nella l		FILE	
Anthocharis cethura (Feldor's	Ottom - H. V			
Louison nyantis (Desert Pearly	Machini		100	abi
Conds durymeme (Orange Cut	Almost		#7	#
Conas harfordii (Harford's Sula	hur)			111172
varriums role (Dainty Suinbur)	· · · · ·	-	1	0
pilionidae (Swallowtalle)	7782 - 750	-		
apillo polyxenes (Desert Black	Swallowtail)		8	Notes:
where on Minipol (Sale emplie	14 m 175		-	
apilio rutulus(Western Tiger S	wallowtail)		-	
Minimus (Wetalmarks)			#1	ald .
podemia mormo (Behr's Metal	mark)		1.1	卦1 13
achidae (Hairstreaks and Pi	ues)	-	1111	TH HID-III
elastrina Lidon (Spring Azure)		-		
eptotes marina (Marine Blue)			-	
rephidium oxile (Western Pygn	y Blue)		1	
aucopsyche lygdamus (Southe emlargus ceraunus (Edward's I	rn Blue/Silvery	blue)	145	.,
aria semon (Acmon Blue)	side)		#7	#
ilotes sonorensis (Sonoran Blu	100		THUM	(M)
illophrys augustinus (Brown Elf	6)	1	11.	111
llophrys perplexa (Perplexing (in)			
Freeze Free In 1675 (LaTRY Hairotenet		()		
les halesus (Great Purple Hair	etrook)		100	
VANC-Spotted P	birdak)		#1	

intial Nectaring or Host Plants for Quino Checkerspot Butterfly In Boulevard, California (Concentrix Solar)

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Antirrhinum coulterianum = AC Callinsia concolor = CC Cordylanthus rigidus = CA Plantago patagonica = PP

★ Amsinckla menziesii	Rancher's Fiddleneck
· Antimhimum coulterianum	Coulter's Snapdragon
C Anterbinum nuttalkanum	Nuttalia Spapdragon
- Asclopias lusciculoris	Narrow-leaf Millowend
Soechere sp.	Rock Cress
· Coleridorno cilleta	Red Maids
 Chlocharitis concolor 	Golden-bowl Marlpose Lily
1 Calyslegia longipes	Moming-glory
Camissonia sp.	Sun Cup
" Castilleja oxerta	Paintbrush
c. Ceulanihus helerophylius	San Diego Jewelflower
Caulaninus simulans	Payson's Causanthus
o, Counothus cuneatus	Buck Bruch
Ceanothus graggii	Cup-leaf-lise
Ceanothus leucodermis	Chaperral Whitethorn
Cheanaclis artemisitolie	White Pincushion
Chaenoctis glabriusculo	Yallow Pincushion
· Clemulis ap	Clemets
Collesia concolor	Southern Chinese Houses
· Cordylanthus rigidus	Cark-tip Bird's Seak
· Contopsis californica	California Coreopsis
Corethrogyno Magnidolla	Common Sand-aster
Cryplanthe sp.	Cryptenths
Gucurbila foelidissima	Calabazdia
K Descuratria sp.	Tanay-mustard
Dicentra chrysontha	Goldan Ear-drops
C Dichelostenima capitatum	Blue Dicks
Dudleya ep	Oudleya
Emmananthe pondulifora	United wing Bells
Erlastrum ap.	Woolly-star
Ericemetia sp.	Goldenbush
Erigeron foliosus	Leafy Daisy
Eriodictyon Inchocalys	Hally Yniba Santa
Eriogonum fesciculatum	Inland Caldorna Buckwheal
Eriogonym sp.	Buckwheet
Emphyllum sp.	Golden-yarrow
Erodium cicularium*	Red-stem Storksbill
Erysismum capitalium	Western Walifower
Eschscholzin californica	California Poppy
Eucrypta chrysanthemiloše	Spotled Hideseed
Eulhamia occidentalis	Western Goldenrod
Garrya vyskobii	Carryon Silk Tassel
Giffe st).	Gifa
Grophalium	Curtweed
Giállenia Instophytia	California Mustans
Gullerrezia serolirree	Broom Metchweed
Heliotropium curassavicum	Salt Heliotrope
Hirshleidin Incana	Short-pod Musterd
Lambum emplexicante	Henbit
Lestheniu gracitis	
Layie glandulose	Common Goldfields White Layla
Lepkium sp.	
Unanthus belies	Popperweed
Letenihus dicholomus	Dosart Seauty
Loorcera subspicele	Evening Snow
Meloculture colifornica	Johnston's Honeysuckto
Malacothra clovelandii	California Dandellon
Marah macrocarpus	Cleveland's Malacothrix
Membium vulgare"	Wild-cucumber
Matricatia maincanoidas	Relepted
Mentrella vesichiana	Common Pineapple-weed
	Vealch's Stick-leak
Microsteris gracilis	Slender Phlox
	Ballioth Lancett Barriers
Mimulus sp. Nemophila menzelsk	Monkeyflower Small-flower Baby Blue Eyes

3	Osmadenia tencila	Osmodenia
17	Pasonia californico	California Paony
×	Pectocarya sp.	Pectocarya
×		Phecelia
	Pholistoma membraniceum	Write Flasta Flower
X	Plogiobothrys sp	Popcornflower
35	Plantago patagonica	Desert Plantain
0	Platystemon californicus	Cream Cups
4	Primus incloste	Holly-leaf Cherry
Tr.	Refinesquie neoniexicene	Desert Chicory
11	Ribes querceforum	Oak Gooseberry
:1	Rompa nestudiam-aquaticum	Water-cress
-11	Rosa californica	California Rose
0	Saltugija nustretis	Southern Gilia
4.	Senecio caldornicus	California Butterweed
U	Senecio Hacaldus	Bulterwend
0	Sidakea malvaoflora	Checker-bloom
×	Sisymbrium ap.	Tumble Mustard
13	Solidago californica	California Goldenrog
27	Stachys ajugoides	Hedge-nettle
	Stephangmeria sp.	Wrealbplant
٥	Stroptenthus compostris	Southern Jewelflower
11	Stylocimo graphatioides	Everlasting Nest-straw
4]	Tetradymia comosa	Cotton-thorn
×	Плучапосырыз вр.	Fringepod
D	Trichostemnia panetiii	Mountain Bluecurts
0	Tropidocerpum gracile	Slender Dobie god
W		Silver Puffs
7	Viola purpurea	Odis Yalisaw Violet
0	01 105-1	
9		
0	Other Flowering Plants:	

regetative Encelia actomi
Phus ovata

Rare Wildlife or Rare Plants:

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Photo Proceedings of the control of		. /	A	Date: 5/4/// GPS Unit :	
Project: Concentrix				6 QCB Protocol Survey # 6 of	5
TDME (24-hour)	Temp (F):	Wind (evalpose)	20 W	Sky	
8m 11150	77.5	3.3/5.6	-0-	Culast patchy ovoices drizzle shower	
12:45	48.2	4.1763	8	clear patchy evertast drizzle shower	
-1:40	49.5	52170	0	(closir patchy overcent drizzle shower	
30	8EN	12/12/	0	class pakiny overcest drizzlo shower	
2:28	1776	31/52	0		-
2.20	74.0	21/216	0	clear posicity overcest drizzle shower	
14.00	au o	42119	0	clour suddhy myorcoall drizzle showor	_
End 4:00	177	4.2/6.9	_	clear patchy evercual drizzle shown	
Habitat On-sile (circle)	pen solis hilltops,	idges rock outcre	Total	clay soils, old roads, various nectal sources	Total
Nymphalidae (Brushfoo	ted Butterflies)		Total	Hesperiidae (Skippers)	Total
Euphydryas aditha (Qui				Erynhis funoralis (Funereal Duskywing)	1
Euphydryas chalcedons		rspot)		Erynnis Iristis (Sad Duskywing)	
Thessalia leanira (Wrigh	A Laboratory and the second			Erynnis propertius (Propertius Duskywing)	-
Chiosyne californica (C.				Erynnis brizo (Sleepy Duskeywing)	
Chlosyne gabbii (Gabbi				Pyrgus albercens (Checkered Skipper)	
Phyciodes mylitta (Mylit				Hespena jubia (Jubia Skipper)	
Junonia coenia (Commi		KII	-7	Polites sabulati (Sandhill Skipper)	1
Vanesse annabella (We		11.70	1	Megalhyrnidae (Giant Skippers)	1
Vanessa atelanta (Red.				Megathymus yuccec (Yucca Giant Skipper)	-
Vanessa cardui (Painte	-				
Vanessa virginiensis (V		1		Other Butterflies:	
Nymphalis californica (shelf)			
Danaldae (Milkweed Bu	And the second s	AND THE SALE	BEN		-
Dunaus plexippus (Mon	And the second second second		ST. ST.		
Danaus gilippus (Queer					
Satyridae (Satyrs)			Bush		
Coenonympha california	ca (Common Califo	CONTRACTOR OF THE PARTY OF THE	7	1	- 3
Pieridae (Whites, Sulph		The state of the s			-
Pieris rapae (Cabbage)		el.			+
Pontia sisymbrii (Spring		131	_		
Pontia beckerii (Beker's					LS.
Pontia profodice (Comm		-	3		735
Anthocharis sara (Sara			1		-
Anthocheris cethura (Fe					
Euchice hyantis (Desert		b.			
Collas eurytheme (Oran			1		
Colles harfordii (Harford	's Sulphur) 1	AUI .	10		
Nathalis late (Dainty Su	lobuc)	Nii	10		
Papilionidae (Swallowta		10 miles 100 miles	487500	Notes:	
Papilio polyxenes (Dese		all)	No. of the last of	177700	
Papillo eurymedon (Pak			1		
Papilio rufulus(Western		1	1		7
Riodiniade (Metalmarks		A PRINCIPLE OF THE PARTY OF	100		1
Apodemia mormo (Beh		TUPLE	12		_
Lycaenidae (Hairstreaks		MIII	14		
Celastrina ladon (Spring	SECURE AND DESCRIPTION OF THE PERSON OF THE		-		
Leptotes marina (Marin			_	+	
Brephidium exile (West					
Glaucopsyche lygdamu		Silvery blue)			1
Hemiargus ceraunus (E		and the same			1
içaria acmon (Acmon 8			19		1
Philotes sonoronsis (So			3		1
Callophrys augustinus (AND ADDRESS OF THE PARTY OF THE		-		-
Callophrys perplexa (Pe		airstroak)	-		1
	MERCANING CARGOLI LA	androwy			-
Strymon melinus (Gray Allides hulesus (Great I	Hairstreak)				

atial Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar)

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum caulterianum = AC Callinsia concolor = CC Cardylanthus rigidus = CR Plantago patagonica = PP

Ameinskie maariaali	
Amsinckia menziesii Antirchimum coulterianum	Rancher's Fiddleneck
Antirchinum nutlalianum	and a Silabulation
Asclepias tescicularis	Nuttall's Snapdragon
Boochera sp.	Narrow-leaf Milkweed
Calandrinio clireta	Rock Creas
Calochortus concolor	Red Maids
Calvatagia longion	Golden bowl Mariposa Lify
A CONTRACTOR OF THE PROPERTY O	Morning-glory
Camissonia sp	Sun Cup
Castilleja axerta	Paintbrush
Caninnthus heterophythus	San Diego Jowelflower
Caulanthus simulans	Payson's Cautanthus
Coanolhus cunealus	Buck Brush
Ceanothus gragga	Cup leaf-like
Cosnothus lepcodormus	Chaparral Whitelhorn
Chaenach's artemisklako	White Pincushion
Chaenacits globitusculo	Yellow Pincushian
Clematis sp	Clarriates
Coffinale concolor	Southern Chinese Houses
Cordylanthus rigidus	Dark-tip Bird's Beak
Consopsts celifornica	Captornia Coreopsis
Corethrogyne Maginatolia	Common Sand-aster
Cryptantha sp.	Cryplaniha
Cucurbila foetidissima	Calabazilla
Descuranta sp.	Yansy-mustard
Dicontra chrysantha	Golden Ear-drops
Dichelosterima capitalum	Blue Dicks
Оистоуа вр.	Dudleya
Emmananthe penduldera	Whispenng Beffs
Eriestrum sp.	Woody-star
Ericameria sp.	Goldenbush
Erigeron foliosus	Leafy Dalsy
Eriodictyon trichoculys	
Eriogonum lasciculatum	Hally Yerba Sante
Eriogonum sp.	infand Cafifornia Buckwheet
Enophyllum sp.	Buckwhest
Erodium cicularium*	Golden-yarrow
Erysismum capitetum	Red-ziem Stocksbill
Eschschotola catifornica	Western Waltower
Eucrypia chrysanthanidola	California Poppy
Euthamio occidentalis	Spotted Hidesecd
Элгуа veolchi	Western Goldensod
Gillia sp.	Carryon Side Tassel
Зи вриян ит	Gilia
Swilenia lusiophytta	Gudweed
Subtresia sarothrae	California Mustard
feliciropium curessavicum	Broom Matchweed
transferition to a service of the se	Salt Heliotrope
hrshieldia Incone Amium amplexicavie	Short-pod Mustard
	Henbit
esthenia gracills	Common Goldfields
aylo glandulosa	White Layle
opidium sp	Pepperwoed
hanthus bellus	Desart Beauty
nanthus dicholomus	Evening Snow
vricere subspicate	Johnston's Honoysuckle
alacultrix californics	California Dandelton
alacothrix clavelandil	Cleveland's Malacothrix
arch macrocarpus	Wild-cucumber
arrubium vulgare*	Horehound
ptriceria matricarioides*	Common Pincapple-weed
entroite veatchiene	Vealch's Stick-leak
crosteris gracilis	Slander Phlox
mulus sp.	Mankeyflower
mophila menzelsii	Small-flower Rates Blue Even

Orobanche bulbosa

Osmadenia tonella	Osmađenja
" Paeonia californica	California Peony
 Pectocarya sp. 	Poctocarys
n Phacella sp.	Phacella
 Pholistonia niembrenaceum 	White Fiesta Flower
n Plagiobothrys sp	Popcomillower
 Plantago paragonica 	Desert Plantain
Platystemon californicus	Cream Cups
Prinus lacifolia	Holly-leaf Cherry
 Ralinesquio neomexicana 	Desert Chicory
Ribes quorcetorum	Oak Gooseborry
Rorripa nasturtium-aquaticum	Water-cress
- Rosa californica	California Rose
Softupilla dustralia	Southern Gra
Senecio californicus	California Butterwood
Senecio Rendidus	Bullerweed
Sidnices molypolicia	Checker-bloom
Sisymbrium ep.	Tumble Musterd
Solidago californica	California Goldeniod
Stactnys ejugantes	Hodge-neitle
Stephenomeria so	Wreathplant
Streptanthus campestris	Southern Jowethower
Shylochne gnaphefoxles	Evertasting Nest-straw
Tetrarlymia comosa	Cetton-thorn
Thysanecarpus sp.	Fringepod
Trichoslomma perishii	Mountain Blosouris
Tropidicarpum gracile	Siender Dobie-pod
Uropappus lindloyt	Silver Putts
Viola purpuroa	Out Yallow Violet
Other Flowering Plants:	

Raro Wildhie or Rem Plants:

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Small-flower Baby Blue Eyes

Chaparral Broom-rape

Project: Concentrix So	lar Project	Map #:	Survey S	xn;	QCB Proto	col Survey #		of	5
TIME (24-hour)	Temp (F*):	Wind (evalue	x) ¥	cc		Sky			
Start 935	64	3/5		c)	Char	paichy overcast	drizzle	Shrawes	
1048	67	4/7		0	(hax)		drizzle	phowel	
120	70	1/8		0			drizzle		
	,,,	10	_		clear	palchy ryvircust		Showed	
145		06	-	-	cleor	catchy overcost	drizzly	гhамон	
17-	71	2/5	-	0	Cina	pototy neartest	drozia	SZCWMI	
		/	_		clear	patchy overcasi	drizzle	ENHAGA	
End 2/0	72	3.1/5		0	(Lear)	patchy overcast	drizzia	Shower	
Habitat On-site (circle): ope	n soils, hilltops		outcrops, so	oil crusts, cl	ay soils, old roads, va	ifious nectar source		IU.	,
Nymphalidae (Brushfoote	d Butterflies)	Map 3	Map	Total	Hesperiidae (Skip)	narel	Map 3	PAP	6 Yo
Euphydryas aditha (Quino				-		(Fugereal Doskywin	vn)		8
Euphydryas chalcedona (the same of the sa			Erynnis tristis (Se		91		-
Thessalia leanira (Wright's						s (Propertius Dusky	wine)		-
Chiosyne californice (Calif			-			epy Duskeywing)	vering)	-	+
Chlosyne gabbli (Gabb's ((Checkered Skippe	ar)	-	+
Phyciodes mylitta (Mylitta			_		Hesperia jubija (Ju		-	-	2
Junania coenia (Common		F1111	111	25	Polites sebuleti (S				-
Vanessa annabella (West		101	111	0/3	Megathymidao (Gi			CV.	-
Vanessa stalanta (Red Ad						cae (Yucca Giant S.	kipper)		1
Vanesse cerdui (Painted		-		-	mogacymos you	and I among might be			1
Vanessa virginiensis (Virg					Other Butterflies:	100 S.	S. North	Section 1	(8)
Nymphalis californica (Ca		eshell)					1	200	1
Danaldae (Milkweed Butte		283	P. 2500		Piny	lupini Catallus	M		3
Danaus plexippus (Monar	The second second				771.02000	S a Latitude	1.	-	-
Danaus guippus (Queen)					The second		1		
Satyridae (Satyrs)			-		11the		-		
Coenonympha californica	(Common Cal	ifornia Ringlet						7	1
Pieridae (Whites, Sulphun					Kundinstown	fulva 11			12
Pieris rapae (Cabbage Wi	ite)				Stylumada	ceptabes	11		2
Pontia sisymbrii (Spring W					Schine	fulva 11 cephalica aurantius	aV		10
Pontie beckeni (Beker's W					11,11,21	1.1.1.1			1.
Pontie protodice (Commo				4					
Anthocharis sara (Sara Or			1						
Anthocheris celhura (Feld									
Euchica hyantis (Desert P	and the second s			2					7
Colias eurytheme (Orange			1	- 1					
Colias harfordii (Harford's									
Nothalis iole (Dainty Sulpi									
Papilionidae (Swallowtails			100		Notes:		200		=
Papilio polyxenes (Desert		tail)	-						
Papilio eurymedon (Pale s		in.			Very	yeard cont	Story		-
Papilio rululus(Western Tr		ıy	-	-	-	, ,-			-
Riodiniade (Metalmarks)	Contract to the Contract of th	A 41.54 44.5		-1	Laon	This gog			-
Apodomia mormo (Behr's Lycaenidae (Hairstreaks a		A MANAGON	XX	80/20		The second of	11		-
Celestrina Isdon (Spring A	And in case of the last of the	No.			11	11.11.	11 1	2.2	-
Leptotes marina (Marine E			-		Also I	balacthic, b	enaple	fa 12	
Brephidium exile (Western				-	Carons	OL LASTER	1 06	44.8	-
Glaucopsyche lygdamus (-	1					-
Hemiargus caraunus (Edv		. Diriting Diddy	-				-		+
Icaria acmon (Acmon Blue			///	4/3					
Philotes sonorensis (Sano			1.1	1/3			1		-
Callophrys augustinus (Br		-		-					
Callophrys perplexa (Perp		leirstreak)		-			_		-
Strymon melinus (Gray Ha		in the second	-	-					-
	the state of the s			-	-				-
Atlides halesus (Great Pur	Die Hairstraak) /		/					

antial Nectaring or Host Plants for Quino Checkerspot Butterfly In Boulevard, California (Concentrix Solar)

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC Collinsia concelor = CC Cordylanthus rigidus = CR Plantago palogonico = PP

11	Amsinckia monovasie	Rancher's Fiddleneck
i.	1. Transcription	Couller's Snapdragon
c		Nultail's Snapdragon
	Asciepras fascicularia	Natrow-leaf Milkweed
	Bocchera sp	Rock Cress
. ,	Calendonia cilipta	Red Maids
	Calochortus concolor	
	Culystegia longipes	Golden-bowl Mariposa Lily
n	Camissonia sp.	Morning-glory
,	Castilleja exerta	Sun Cup
,	Couranthus beterophysius	Palothrush
_	Caulanthus simulans	San Diego Jewelflower
5		Payson's Cautanthus
	Gednothus cureatus	Buck Brush
V	Coanothus grogoti and 3, (Cup-leaf-rise
	Ceanothus leucodernis	Chepartel Whitethorn
7/	Chaenaelis artemisiitalin	White Pincushion
Ų.	Chaenaclis plearaiscula	Yellow Pincashion
*	Clematis sp.	Clematis
	Collinsia concelor	Southern Chinese Houses
13	Cordylanthus rigidus	Dark-lip Bird's Beak
9	Coreopsis californica	California Coreopsis
0	Corethrogyne filaginifolia	Common Sand-aster
0	Cryptontha sp 4 3,	Cryptantha
	Cucurbita foetidissime	Calabaz/la
	Doscurainio sp.	Tansy-mustard
1	Dicentra chrysontha	Golden Ear-drops
1	Dichelostemma cepitatum	Blue Dioks
4	Dudleya sp	Dogleya
>	Emmenanthe panduttere	Whispering Baffs
1	Epasitum sp.	Woodly-star
-	Encomores sp. aum 3, 6	Goldenbush
	Engeron foliosus	Leafy Dalsy
	Eriodictyon trichocalyx	Hairy Yerba Santa
	Erlogonum fesciculalum	Infand California Buckwheat
	Еподопылі эр.	Buckwhest
	Enophyllum sp	Golden-yarrow
	Erodium ciculanum*	Red-stem Storksbill
	Erysismum capitotimi	Wostern Waliflower
	Eschscholzia californica	
	Eucrypta chrysanthemifolia	California Poppy
	Euthamia occidentalis	Spotted Hideseed
	Garrya waatchii	Western Goldenrod
		Canyon Silk Tapael
	Gilla ap.	Gula
	Graphalium	Codweed
	Guillenia lastophytla	Celfornia Mustard
	Gutierrezia sarothrae	Broom Matchweed
	Heliotropium curassavicum	Salt Heliotrope
	Hirshfoldia incana	Short-pod Mustard
	Jarnium amploxicaula	Henbit
-	Lasthonia gracilis 3, 6	Common Goldfields
-	Tayia glandulosa 🗻 🧵	White Layla
	Lepidium sp.	Pepperweed
	Linanthus bellus	Desert Beauty
	Linanihus dichotomus	Evening Snow
	Lonicera subspicata	Johnston's Honeysuckle
	Malacothrix californica	California Dandelion
	Malacothrix clavelandii	Cloveland's Malacolimbic
	Marah mecrocarpus	Wild-cucumber
	Marrubium vulgare*	Horehound
	Matricana matricarioidas*	
	Mentzelia veatchiuna	Common Pineapple-weed
	The state of the s	Vesich's Stick-leak
	Microsteris gracilis	Stender Phlox
	Mimulus sp.	Monkeyflower
	Nemophila menzelisii	Small-floure Baby Dive Even

Nemophila menzelsii

Orobanche bulbosa

1.	Osmadenia Ichella	Camadenia
17	Pasonia cellomica	California Peony
п	Pectocarya sp	Peclocarya
1	Phucette sp. 3	Phacolla
ø	Pholistomu membranceum	White Flasta Flower
r)	Plaglobothrys sp.	Popograflower
15	Plantago patagonica	Desert Plantain
17	Platystemon californicus	Cream Cupa
d ·	Prunus dictolia	Holly-leaf Cherry
и	Ralinesquin neomexicana	Desert Chicary
o	Ribes quercetonim	Oak Gooseberry
Ų.	Rompa nasturium nquaticum	Waler-cress
0	Rose catifornice	California Rose
11	Sallugita australis	Southern Gilia
ō.	Senecio californicus	Coldomia Butterweed
0	Senecio fleccidus	Bullenwood
. 1	Sidalces malvaeliona	Checker-bloom
-	Sisymbrium sp.	Tumble Mustard
	Solidago californica	California Goldenrod
(c	Stacilys ajugordas	Hedge-nottle
3	Stephanomeria sp.	Wreathplant
. 1	Streptarthus compostris	Southern Jawelflower
	Stylochio gnaphaficides	Everlasting Nest-straw
0	Totradymia comosa	Collan-thorn
4	Diysanocurpus sp.	Fringepod
П	Trichostemma perishir	Mountain Bluecurls
4	Tropidocarpum graces	Stender Gobie-pod
)	Uropappus lindleys	Saver Pulfs
,	Viola purpurea	Oak Yellow Violet
1	Alhas ovata and	
	Char Etamatan Disaba	

Other Flowering Plants:

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Small-flower Baby Blue Eyes

Chaparral Broom-rape

Rare Wildlife or Rare Plants:

	order: Mike C	2.01.01				-					<u> </u>	SPS Unit :	
Proje	ct: Concentrix Sc					QCB Pro	tocol	Sur	vey #	_	2	of	5
	TIME (24-hour)	Temp (F):	Wind (arginas)	*0		-	-	_	- 51	KY	-		
	0830 HOS	70°F	Q -> 4 WOH	D	_	Clear	peto	chy	overo	ast	drizzie	shower	
	0900 HPS	7a°F	8-> 4 mpx	2		clear	pate	chy	OVERC	ant	chizzio	shower	
	1000H05	730F	87-> 4 MPH	0		clear	pate	CTV	overo	ast	thirple	shower	
	HOORES	7.30F	07 - 5mon	2		(248)	pate		overc				
	1200 405	77°F		e			. 0				drizzie	shower	
		76°F			_	(char)	patr	CPTY .	GV6/C	asi	drizzte	shower	
-	1300 405			15		(char)	pak	chy	DABLO	185	drizzie	shower	
End	1400 HRS	न्यक्		B		Clear	pete		overo	Dist.	cirizzio	ahower	
Habka	t On-site (circle): ope	n soils histops	rkiges, rock outers	ns soll	crosts, c	lay solls, old roads,	variou	is ne	ctar so	urce	8)		
					Total		_			-			Tota
	halidae (Brushfoote		1 - The State of Stat	3.0		Hesperiidae (Ski							Ď.
	hydryas editha (Quino					Erynnis funeralis				ywin	9)		1
	hydryas chalcedona (I			-	1.	Erynnis tristis (S							
	ssalia leanire (Wright's					Erynnis properti					ving)		
	syne californica (Calif					Erynnis brizo (5							
	syne gabbli (Gabb's (1	Pyrgus albescer				dppe	u)		
	ciccles mylitta (Mylitta					Hesperia Jub a (
	onia coenia (Common				17	Polites sabulati				1			27
	tesVV) alladanna esse					Megathymidae (G							1
	essa elalente (Red Ad					Megathymus yu	CC-80	(Yuc	ca Gla	nt SI	cipper)		
	essa cardui (Painted							_		-			
	essa virginiensis (Virg					Other Butterflies				30		200	100
	phalis californica (Ca			-		PHOLISORH C	AT.	331.4	34 (C	ome	non So	CHILD'TO	1
	dae (Milkweed Butte		91 Harris 189 July	ST00058		WHITE CHECK							1
	eus plexippus (Monare	ch)		_									100
	eus gilippus (Queen)		411.0	-						_	-		
Satyri	dae (Satyrs)	4200	10年11年11日	50055									1
	nonympha californica							_		•			1
	ae (Whitee, Sulphurs		to Constitute the training	PARTY.									13
	is rapae (Cabbage Wh de alsymbrii (Spring W			-	_								
							_	_		_			
	ia beckeril (Beker's W ia protodice (Commo			-	_			_	_				
	ocharis sara (Sara Or			-	-3		_	_			-		
	ocharis cethura (Felde			-	_					_			
	loe hyantis (Desert P	County of the County of the Party of the Par	_	-	_					_			
	as eurytheme (Orange				1			_		_			-
	s harfordii (Harford's			-	3		_	_	_				-
	alis iole (Dainty Sulph			-+	_			_	_	_			-
	onidae (Swallowtails		Shure to Victoria to	DESCRIPTION OF THE PERSON OF T	_	APARAS MUSEUM CONTRACTOR	97000000	Terror S	SSHIOT.	Series S	Participation (Com-	- 10 (M) - 10	
	llo polyxenes (Desert			NEW T	-	Notes;							
	lio eurymedon (Pale s		ion/	-	_	ENO 1500 H	125	1,7	3 4	WI	NO: 2-7	5men Cier	IR.
	lio rutulus(Western Tig		0	-	_		_		_	_	_		
Riodir	iade (Metalmarks)	Was the state	TO SUSTINGUISE DE LA COMPANION	534300	-		_	_	_	_			-
	femia mormo (Behr's			SECOND .	103	-		_	_	_	_		-
	nidae (Hairstreaks ar			07.3	103			_	-	-			-
	sirina ladon (Spring A			Sec.		11-			_	_	_		-
	otes marine (Marine B			-	-				_	_	-		-
	hidium exile (Western	alterial descriptions and the		-	•			_	_	_			
	copsyche lygdamus (\$		Silveny blue	-	1				_	_			-
	largus ceraunus (Edw		Silvery Didey		_			_		_			- 11
	acmon (Acmon Blue			-	1.0		-	_	_	_			
	les sonorensis (Sono		-		12	-	_						
, same	obrys againstinus (Brr			4									1

Callophrys augustinus (Brown Elfin)

Strymon melinus (Gray Hairstreak) Atlides haiesus (Great Purple Hairstreak)

Cellophrys perplexa (Perplexing Green Hairstreak)

Instructions:

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC, Collinsia concolar = CC Cordylanthus rigidus = CR Plantago patagonica = PP

_	Antirrhinum coulterianum	= AC, Collinsia concolar = CC
-	Ameliackia menylanii	Rancher's Fiddleneck
0	Amsinckia menziesii	
D	Antirrhimum coulterlenum	Coulter's Snapdragon
	Antintrinum nutallianum	Nuttall's Snapdregon
٥	Asclepias fascicularis	Narrow-leaf Milkweed
0	Boechera sp.	Rock Cress :
Ð	Calandrinia ciliata	Red Maids
0	Calochortus concolor :	Golden-howl Mariposa Lity
0	Calystegia longipes	Morning-glory
0	Camissonia sp	Sun Cup
0	Castilleja querta	Sun Cup A Paintbrush (Indian)
0	Caulanthus heterophyllus	San Diego Jewelflower
	Caulanthus simulans	Payson's Caulanthus
Đ	Ceanothus cuneatus	Buck Brush
0	Ceanothus preggil	Cup-leaf-lilac
0.		A. Galler Communication
	Cheanactis artemisidolia	Chaparral Whitethorn
٥		White Pincushion
Φ.	Cheenactis glabriuscula	Yellow Pincushion
0	Clemetts sp.	Clemets
0	Collinsia concolor	Southern Chinese Houses
0	Cordylanthus rigidus	Dark-lip Bird's Beak
0	(Coreopsis californics	California Coreopsia
0	Corethrogyne filaginifolia	Common Sand-aster
٥	Cryplantha sp.)	Cryptantha
0	Cucurbita foetidissima	Calabazilia
0	Descurainia sp.	Tanay-musterd
0	Dicentra chrysantha	Golden Ear-drope
0	Dichelostemme capitatum	Blue Dicks
-		
0	Dudleys sp.	Dudleya
0	Emmanantha pendulifere	Whispering Bolls
0	Enastrum sp.	Woolly-star
00	Encamena sp. LINERIFOLIA	
0	Engeron foliosus	Leafy Daisy
0	Eriodictyon trichocalyx	Hairy Yerba Santa
0	Eriogonum fasciculatum	Inland California Buckwheat
ò.	Eriogonum sp.	Buckwheat
0	(Eriophyllum sp.)	Golden-yarrow
0	Erodium cicutarium*	Red-stern Storksbill
0	Erysismum capitatum	Western Wallflower
0	Eschscholzia californica	California Poppy
u	Eucrypta chrysanthemifolia	Spotted Hidesped
0	Euthamia occidentalis	. Western Goldenrod
_	Garrya veatchii	Canyon Silk Tassel
٠.	Cite ea	CMTCARTON CO.
2	Gilla sp.	Gilia
?.	Gnaphalium	Cudweed
0 .	Guillenia lasiophylla	California Mustard
0	Gutierrezia sarotivrae	Broom Matchweed
à	Heliotropium curessevicum	Selt Heliotropa
9	Hirshfeldia incana	Short-pod Mustard
2	Lamlum amplexicaule	Henbit
0	Lasthenia gracilis	Common Goldfields
	Layla glandulosa)	White Layla
3	Lepidium sp.	Pepperweed
2	Linanthus befus	Desert Beauty
	Linanthus dichotomus	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
~	The property of the same of th	Evening Snow
	Lonicera subspicata	Johnston's Honeysuckie
E-75. 9	(Malacothrix californica)	California Dandellon
	Malacothrix clevelandii	Claveland's Maincothrix
9	Marah macrocarpus	Wiid-cucumber
9	Marrubium vulgare*	Horehound ·
	Matricaria matricarioides*	Common Pincapple-weed
,	Mentzelia veatchiona	Vestch's Stick-leak
,	Microsteris gracitis	Siender Phiox
	Mimulus ep.	Monkeyflower
	Nemophila menzeisii	
7	Omberiche hulbase	Small-flower Baby Blue Eyes Chanarral Broom-rane
	A PROPERTY OF THE PROPERTY OF	Landon arrai estronon-rana

Chaparral Broom-rape

Orobanche bulbosa

0	Osmadenia tenella	Osmadenia
0	Paeonia californica	California Peony
0	Pectocarya sp.	Pedocarya
9	Phacella sp.	Phacelia
,	Pholistome membranaceum	
0	Plagiobothrys sp.	Popcomflower
	Plantago patagonica	Desert Plantain
,	Platystemon californicus	Cream Cups
	Prunus ilicifolia	Holly-leaf Cherry
,	Rafinesquia neomexicana	Desert Chicory
	Ribes quercetorum	Oak Gooseberry
	Romipa nasturtium aquelica Rosa californica	The state of the s
٠.		California Rose
)	Sattugilia australis	Southern Gilia
)	Senecio californicus	California Butterweed
)	Senecio flaccidus	Butterweed
٠.	Sidalcee malvaefiora	Checker-bloom
٠.	Sisymbrium sp.	Turnble Musterd
1	Solidago californica	California Goldenrod
	Stachys ajugoides	Hedge-nettle
)	Stephanomeria sp.	Wreathplant
. :	Streptanthus compostris	Southern Jewelflower
	Stylocline gnaphalioides	Everlasting Nest-straw
	Tetradymia comosa	Cotton-thorn
	Thysanocarpus sp.	Fringepod
	Trichostemma parishii	Mountain Bluecurls
-	Tropidocarpum gracile	Siender Doble-pod
e et		
j.	Uropappus lindleyl	Silver Puffs
	Viola purpurea	Dak Yellow Violet
		The state of the s
7	Other Flowering Plants: RHUS OVATA	SUGAR BUSH
· ·	Other Flowering Plants:	
<	Other Flowering Plants; RHUS OVATR	
7	Other Flowering Plants; RHUS OVATR	
7	Other Flowering Plants; RHUS OVATR	
7	Other Flowering Plants; RHUS OVATR	
7	Other Flowering Plants; RHUS OVATA (CHI'A)	SUGAR BUSH
>	Other Flowering Plants; RHUS ONATA CHIA	SUGAR BUSH
7	Other Flowering Plants; RHUS OVATA (CHIA) Rare Wildlife or Rare Plant (MCLR OL)	SOGAR BUSH
>	Other Flowering Plants; RHUS ONATH (CHIA) Rare Wildlife or Rare Plant MCLR OL	SOGAR BUSH
>	CHIB Rare Wildlife or Rare Plant MC B 30 1 MC 3 MORTAR HOLE	SOGAR BUSH BY HORNED LARKS BLACK-TAILED JACKPASS IT B MORTHR HOLES
7	CHIA Rare Wildlife or Rare Plant MC B 30 1 MC B 30 1 MC B 30 1 MC B 3108TARHOLE MC 4 MORTARHOLE	SOGAR BUSH BY HORNED LARKS BLACK-TAILED JACKPASS IT B MORTHR HOLES
7	CHIA Rare Wildlife or Rare Plant MC B 30 1 MC 3 MORTARHOLE MC WWW 01 CHIA	BOGAR BUSH BY HORNED LARKS BLACK-TAILED JACKPASS IT B MORTHR HOLES MORTHR HOLES
	CHIA) Rare Wildlife or Rare Plant MC B 30 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SOGAR BUSH) BOUNTO LARIO SLACK TAILEO JACKPASSIT S MORTHR HOLES Y MORTHR HOLES HOTAL GESTERN WHIPTAIL
>	CHIA Rare Wildlife or Rare Plant MCHOOLE OL MC 8501 MC 3 MORTHRHOLE MC WW 01 MC WW 09	BOGAR BUSH BY HORNED LARKS BLACK-TAILED JACKPASS IT B MORTHR HOLES MORTHR HOLES
>	CHIA) Rare Wildlife or Rere Plant CHIA) Rare Wildlife or Rere Plant MC B 30 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SOGAR BUSH BOUND LARK BLACK TALLED JACKPASSIT MORTHR HOLES MORTHR HOLES MORTHR HOLES MORTHR HOLES MOLESTEIN WHIPTAIL
>	CHIA) Rare Wildlife or Rere Plant CHIA) Rare Wildlife or Rere Plant MC B 30 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SOGAR BUSH BOUND LARK BLACK TALLED JACKPASSIT MORTHR HOLES MORTHR HOLES MORTHR HOLES MORTHR HOLES MOLESTEIN WHIPTAIL
>	CHIA Rare Wildlife or Rare Plant (CHIA) Rare Wildlife or Rare Plant MCB301 MCB301 MCB301 MCB301 MCB301 MCB301 MCB301 MCB301 MCB000	SUGAR BUSH
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2	CHIB Rare Wildlife or Rare Plants: CHIB Rare Wildlife or Rare Plant MCB301 MCB301 MCB301 MCB301 MCB000 MCWW01 MCWW01 MCWW01 MCWW01 MCWW001 MCWW001 MCWW001 MCWW001 MCWW001 MCWW001 MCWW001 MCWW001	SUGAR BUSH
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>	CHIA) Rare Wildlife or Rare Plant (CHIA) Rare Wildlife or Rare Plant MC 8301 MC 8301 MC 8301 MC 9000 MC WW 09	BUSH BUSH BISH BISH BISH BISH BISH BISH BISH BI
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>	RATE WIIdlife or Rate Plants: RHUS OVATA CHIA CHIA RATE WIIdlife or Rate Plant MC B 30 1 60 MC	SUGAR BUSH SUGAR SUGA
>	CHIB Rare Wildlife or Rare Plant CHIB C	SUGAR BUSH BUSH HORNED LARK BIACK TAILEO JACKPASSIT MORTAR HOLES MO
>	CHIB Rare Wildlife or Rare Plant (CHIB) Rare Wildlife or Rare Plant MCB301 MCB301	SUGAR BUSH SUGAR BUSH BLACK TAILED JACKPASSIC SAMORTHR HOLES METHR HOLES MICHAEL WHIPTAIL MICHAEL SO MICHAE
5	CHIB Rare Wildlife or Rare Plants: RHUS OVATA CHIB CHIB CHIB Rare Wildlife or Rare Plant MCB301 MCB301 MCB001 MCB001 MCB0001 MCB0001 MCB0001 MCB0001 MCB0001 MCB0001 MCB0001 MCB00001 MCB000001 MCB000001 MCB000001 MCB000001 MCB0000001 MCB0000001 MCB0000001 MCB0000001 MCB0000001 MCB0000001 MCB00000000000000000000000000000000000	SUGAR BUSH SUGAR SUGA
5	CHIB) Rare Wildlife or Rare Plants: RHUS OVATA CHIB) Rare Wildlife or Rare Plants MCB301 MCB301 MCB001 MCB001 MCB001 MCB0001 MCB0001 MCB0001 MCB0001 MCB0001 MCB00001 MCB000001 MCB000001 MCB000001 MCB000001 MCB000001 MCB000001 MCB000001 MCB000001 MCB0000001 MCB0000001 MCB0000001 MCB0000001 MCB0000001 MCB00000001 MCB0000001 MCB0000001 MCB00000001 MCB000000001 MCB00000000000000000000000000000000000	SUGAR BUSH SUGAR BUSH BLACK TAILED JACKPASSIC SAMORTHR HOLES METHR HOLES MICHAEL WHIPTAIL MICHAEL SO MICHAE
5	CHIB) Rare Wildlife or Rare Plants: CHIB) Rare Wildlife or Rare Plant MCHBO! MCBSO! MCBS	SUGAR BUSH SUGAR BUSH BLACK TAILED JACKPASSIC SAMORTHR HOLES METHR HOLES MICHAEL WHIPTAIL MICHAEL SO MICHAE
5	CHIB) Rare Wildlife or Rare Plants: RHUS OVATA CHIB) Rare Wildlife or Rare Plants MCB301	SUGAR BUSH SUGAR BUSH BLACK TAILED JACKPASSIC SAMORTHR HOLES METHR HOLES MICHAEL WHIPTAIL MICHAEL SO MICHAE
5	CHIB) Rare Wildlife or Rare Plants: RHUS OVATA CHIB) Rare Wildlife or Rare Plants MCB301 MCB301 MCB301 MCB000 MCB000 MCB0000 MCB00000 MCB0000 MCB00000 MCB0000 MCB0000 MCB0000 MCB0000 MCB0000 MCB0000 MCB00000 MCB0000 MCB0000 MCB0000 MCB0000 MCB0000 MCB0000 MCB00000 MCB00000 MCB00000 MCB00000 MCB00000 MCB00000 MCB000000 MCB000000 MCB000000 MCB000000 MCB0000000 MCB0000000 MCB00000000 MCB00000000 MCB0000000000	BUSH BUSH BIACK TAILED JACKPASS IT B MORTHE HOLES S MORTHE HOLES RETAL WESTERN WHIPTAIL MCWW AU MC WW AU MC
5	CHIB) Rare Wildlife or Rare Plants: RHUS OVATA CHIB) Rare Wildlife or Rare Plants MCB301	SUGAR BUSH SUGAR BUSH BLACK TAILED JACKPASSIC SAMORTHR HOLES METHR HOLES MICHAEL WHIPTAIL MICHAEL SO MICHAE

MCWW18

Quino Checkerspot Butterfly Protocol Survey — Field Data Sheet

ect: Concentrix	Solar Project 1	Map#: 3 Su	rvev Sxn:	7 QCB Pro		18/2011		of	5
TIME (24-hour)	Temp (P'):	Wind (avernox)	N CC			3kr		- 01	-
1100	50	25/54	400 500	clear	paichy	reg/avor	dizzlo	STITMER	
		1		clear		/ overcast	drizzie	shower	
1252	67	5/12	2.5	cienr	patchy	Overcust)	drizzla	shower	
				duar	patchy	ovecoast	drizzlo	shower	
				tiese	putchy	overcest	drigzle	shower	
	4	,		civor	policing	DAMA CHINE	grazio	shower	
200	69	10/19	30	clear	potchy	oprorease)	drizzie	Migwor	

Ens 200	69	10/19	30	clear potothy apprend drazde allower	
Habitat On-site (circle): op	en soils, hilltops	s, ridges, rock out	crops, soil crusts Tota	, clay soils, old roads, various nectar sources	7.4
Nymphalidae (Brushfoot	ed Butterflies)	TERM SECTION	100	Hesperiidae (Skippers)	stoT
Euphydryas editha (Quir	Committee of the Commit		-	Erynnis funeralis (Funereal Duskywing)	
Euphydryas chałcedona	makes about the larger proper larger and an arrange and a second			Erynnis histis (Sad Duskywing)	-
Thessalla leanire (Wrigh				Erynnis propertius (Propertius Duskywing)	-
Chlosyne californica (Ca	the second second second second			Erynnis brizo (Sleepy Duskeywing)	-
Chłosyna gabbli (Gabb's				Pyrgus albescens (Checkered Skipper)	-
Phyclodes mylitta (Myktt.				Hesperia jubia (Jubia Skipper) //	2
Junonia coenia (Commo		er		Polities subulcti (Sandhill Skipper) XX	-
Venessa annabella (West Coast Lady)				Megathymidae (Giant Skippers)	20
Vanessa alalanta (Red Admiral)				Megalhymus yuccao (Yucca Giant Skipper)	+
Vanessa cardui (Painted Lady)				magarymas yasasa (104ca angin oreppan)	
Vanessa virginiensis (Vir				Other Butterflies:	
Nymphalis californica (C		ashell)		(U10/2)	
Danaidae (Milkweed Butt		and the same of th	V		
Danaus plexippus (Monarch)				Kodiesoma fulya	/
Danaus gilippus (Queen)			_	Halinibis bellactore	2
Satyridae (Satyrs)	N	The second			-
Coenonympha californica	(Common Cal	ifornia Rindett			-
Pieridae (Whites, Sulphu		Mornia Kinglety		-	-
Pioris rapae (Cabbage V		MS IOT N	0/11		-
Pontia sisymbrii (Spring)			-	+	-
Pontia bockerli (Beker's I			_		-
Pontia protodice (Commo	the last transfer of the last		- ,		-
Anthocharis sara (Sara C		_	/	1	-
Anthocharis cethure (Fe)		1			-
Euchloe hyantis (Desert			_		-
Colias ourytheme (Orang		_			-
Collas harfordil (Harford's	and the second s		/		-
Nathalis iole (Dainty Sulp		0	/		-
Papilionidae (Swallowtall				NAME	
Papilio polyxonos (Deser		4oll)		Notes:	
Papilio eurymedon (Pale		rtatil)	_	Tax cold, for & ovarcast @ 940.	Cye
Papilio rutulus(Western 1		in			
Riodiniade (Metalmarks)	and the state of t	iii)		Masin and 7 D / Am	_
Apodemia mormo (Behri	Company of the Compan	turre		SOZ rloude warmer	-
Lycaenidae (Hairstreaks		411//	7		100
Celestrine ledon (Spring .				Gove conditions up many botte.	16
Leptoles marine (Marine				- Cham - Liver	-
Brephidium exile (Wester				Good condition of many batts. Fuding early when to menther	
Glaucopsyche lygdamus					-
Hemlergus ceraunus (Ed		TORVERY DIVE			-
Icada acmon (Acmon Blu				-	-
Philotes sonorensis (Son					
Callophrys augustinus (8	the second control of				
Callophrys perplexa (Per		Jalasten of			
Canopinys perpexa (Per		iansueak)			
Strymon malinus (Gray H	distinguish.				

Please Place a Check Mark Baside Flowering Plants, Use Numbered Notes to Add Species Delail,

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterianum = AC - Collinsia concolor = CC - Cordylanthus rigidus = CR - Plantago patagonica = PP

7	America Chamber 1 and 1	A Transport
	Amsinckia menziesli	Rancher's Fiddleneck
.1	Antirrhimum coultorianum	Coulter's Snapdragon
,	Ansithinum nuttalilanum	Nuttali's Snapdragon
)	Ascieņus fasticularis	Narrow-toaf Miskweed
)	Boechera sp.	Rock Cress
3	Culundrinus cittrita	Red Malde
	Celochadus committer	Golden-bowl Mariposa Lily
)	Calystepia tongupes	Morning-glory
1	Camissonia sp.	Sun Cup
,	Castilleja exerta	Paintbrush
1	Caulanthus helerophyllus	San Olego Jewelflower
	Caulanthus simulans	Payson's Caulanthus
	Ceanothus cunsalus	Buck Brush
	Coanoffrus greggii	Cup-leaf-lifac
	Ceanothys leunodermis	Chaparral Whilethorn
	Chperractis artemisirfolia	White Pincushiph
	Cheenacus glabriuscula	Yellow Princushion
	Chematia sp	Clemalis
92	Collinals concolor	Southern Chinese House
	Cordylanthus rigidus	Dark-tip Bird's Book
	Coreopsis californica	California Coreopais
	Carethrogyne fileginfolia	
,	2	Common Sand-aster
	Cucurbita foetakssime	Cryplantha
		Calabazi/a
	Descurainta sp.	Tensy-musterd
	Dicentra chrysenthe	Golden Ear-drops
	Dichelostemma cepitalium	Blue Dicks
	Dudieya sp	Dudleya
	Emmenenthe penchildere	Whisparing Bells
	Eriostrum sp	Woolly-star
	Ericamoria sp	Goldenbush
	Erigeron foliosus	Leafy Daisy
	Eriodictyon trichocalyx	Havy Yerba Santa
	Eriogonum fasciculatum	Inland California Buckwheat
	Eriogonum sp.	Buckwheat
	Eriophyllum sp.	Golden-yearow
	Erodium eleuterkum*	Red-stern Storksbill
	Erysismum capitatum	Westorn Wallfower
	Eschecholza californica	California Poppy
	Eucrypia chrysanthemilolia	Spotted Hiduseed
	Eulhamio occidentella	Wastern Goldenrod
	Garrya vealchill	Canyon Six Tassel
	Gitta sp.	Gilla
	Gnaphalium	Cudweed
	Guilleria lastophytta	California Mustant
	Gullerrezia загодива	Broom Matchweed
	Heliotropium curassavicum	
	Hirshlekila jaçana	Salt Heliotrope
	Lanvym amploxicaule	Short-pod Musterd
,		Hanbit
1	Lasihenia greciks	Common Goldfields
	Layia glandulosa	White Layle
	Lepidium sp.	Pepperweed
	Linanthus belies	Desert Beauty
	Limanitrus récholorius	Evening Snow
	Lonicera subspicate	Johnston's Honeysuckie
	Malacothna californica	Catiomia Dandellon
1	Malacothrix develandii	Cleveland's Malacothric
	Marah macrocarpus	Wid-cucumber
	Martubium vulgero*	Herehound
	Matricaria metricarioldes	Common Pineapple wood
	Mentzetia vealchtana	Vestch's Stick-leak
	Microstoris gracilis	
	Mimulus sp.	Stander Phiox
	mutunita sh	Monkeyflower
	Manaa - b. L ·	A A

Nemophila menzusa

Orohanche bulbosa

ď	Osmadenia tenella	Osmadejua
0	Peconia californica	California Peony
10	Pectocarya sp.	Pectocarya
13	Phacelia sp.	Phacella
0	Pholisionia membrangoeum	White Fiesta Flower
0	Plaglobothrys sp.	Popcornflower
0	Plantago palagonica	Desert Plantain
6	Platystemon californicus	Croam Cups
$\hat{\epsilon}$	Prinus Ricifella	Holly-leaf Charry
0	Refinesquie recimendario	Desert Chicary
0	Ribas quarceforum	Oak Gooseberry
35	Romps nasturium aquaticum	Water-cress
13	Rosa coldomica	California Rosa
0	Satuguia australis	Southern G#a
0	Senecio californicus	California Butterwood
0	Senecio Reccidus	Butterweed
0	Sidekçea melveefloto	Checker-bloom
6	Sisymbourn sp.	Tumble Mustard
0	Solidago californica	California Goldenrod
9	Stachys ajūgoidas	Hodge-nettle
0	Stephenomerie sp.	Wreathplant
ö.	Streplanthus campostris	Southern Jawellower
0	Stylockine graphakoides	Everlasting Nost-straw
0	Tetradymia comosa	Collog-thorn
0	Thysonocurpus sp.	Francepod
0	Trichostemma parishti	Mountain Bluecuris
er.	Tropidocarpum gracile	Slender Dobie-pod
0	Uropappus knalleyi	Sitver Puffs
0	Viola purpuree	Oak Yellow Viciel
0	Action to the second	
10		

Other Flowering Plants:

10

0 0 0

13

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0

Small-flower Baby Blue Eyes

Chaparral Broom-rape

Rare Wildlife or Rare Plants:

Quino Checkerspot Butterfly Protocol Survey — Field Data Sheet

5

Total
1
1
11
-
1.5
3
4
1
-
1
1
1
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TOP TOP IL
OKRARR.
1001
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LIZAR
B 1.77
+
·

Potential Nectaring or Host Plants for Quino Checkerspot Butterfly in Boulevard, California (Concentrix Solar)

Minrulus sp.

Namophila mermalari

Orobanche bulbosa

Please Place a Check Mark Beside Flowering Plants, Use Numbered Notes to Add Species Detail

PLEASE RECORD HOST PLANTS ON GPS See Codes Balow.

Cordylanthus rigidus = CR Plantago patagonico = PP

-	Antifrhinum coulterlanum	o = AC Collinsia concalar = C
-10	Amsinokia menziosii	Rancher's Fiddleneck
0	Antirhimum coulterianum	Coulter's Snapdragon
1,6	Antirihlaum nuttellisaum	Notte5's Snapdragon
11	Asctepios fascicularis	Narrow-leaf Milkweed
4.1	Buechera sp.	Rock Cress
L	Colondrinia ciliata	Red Maids
9	Calochortus concelor	Golden-bowl Mariposa Lify
11	Calystegus longipes	Morning-glory
- 11	Camissonia sp	Sun Cup
0	Castilleja exerta	Paintbrush
45	Cautamhus haterophylius	San Diego Jawelliower
-10	Ceulenthus simulana	Payson's Caulanthus
D	Ceanothus cunosius	Buck Brush
17	Caanothus graggii	Cup-test-lilac
13	Ceanothus leucodemis	Chaparral Whitethorn
	Chooneclis artemisidoha	White Principlian
(P	Chnenactis glabifuscula	Yellow Pincushion
,	Clematis sp	Clemate
Q	Collinsia concolor	Southern Chinese Houses
3	Cordylanthus rigidus	Dark-tip Bird's Beak
X	Coreopsis californica	California Coteopsis
11	Corethrogyne Magunfalle	Common Sand-aster
74	Cryptaniho sp	Cryplaniha
0	Cucurbite foetidissime	Calabazijis
ы	Descurante sp.	Tansy-mustard
Ú,	Dicentre chrysonthe	Golden Ear-drops
17 -	Dichelostemme capitalum	Bita Dicks
2	Dudleya sp	Dudleya
4	Emmenanthe penduldera	Whispering Betta
-0	Enastrum sp.	Wootly-star
20	Ericamena sp.	Goldenbush
P7	Erigeron foliosus	Lealy Darsy
4	Enodiciyon trichocalys	Heiry Yerbe Sente
D	Erlogonum lasciculetum	Intand Catifornia Buckwheat
0	Enogo/vm sp. EnophyRum sp	Buckwhoai
	Erodum cicularium?	Golden-yarrow
C.		Red-stem Storkebill
15	Erystemum capitatum Eschecholzin cellfornice	Western Wallflower
n n	Енстурга chrysanthensfolia	California Poppy
6	Euthamia occidentalis	Spotted Hideseed
0	Garrya veatchil	Western Goldenrod
a a	Gilla sp.	Canyon Silk Tassel
	Gnophallum	Gilla
	Guikenia lasiophytta	Cudweed
	Guttermzia sprothrae	Catifornia Mustard
	Heliotroplum curessavicum	Broom Matchwend Salt Heliotrope
	Hirshfelden erenna	
	Lamilum amplexicoule	Short-pod Mustard Henbit
	Lasthonia gracits	Common Goldfields
	Layla glandulosa	White Layie
	Lepicium sp	· ·
	Linenthus bellus	Papperweed Desert Beauty
	Linenthus dicholomus	Evening Snow
	Lonicera subspicata	Johnston's Honeysuckie
	Valocothrix californica	California Dandellon
	Molecotiimi clevelandii	
	Marah macrocarpus	Cicveland's Malacothrix
	Marrubium vulgare*	Wild-cucumber
	Antricona matricoriokies*	Morehound
	Ventzelia ventobiana	Common Pineapple-weed
	Herosians gracilis	Vealch's Stick-leak
	Himselva e e	Standar Phlox

Monkeyflower

Small-flower Baby Blue Eyes

Chaparial Broom-rape

0	Osmindenia tenella	Osmacenia
F	Puednia californica	California Peony
PA.	Pectocarya sp.	Pectocarya
χĺ	Phacelle sp. 4) Sharing	Phacella
-	Pholistonia membraneceum	White Flesta Flower
۲.	Plaglobothrys sp.	Popcomñower
	Plantago patagonica	Desert Plantain
	Platystemon californicus	Cream Cups
:	Prunus dicifolia	Holly-bal Cherry
9	Rafinesquia neomexicana	Desert Chicony
j.	Ribes quervelorum	Oak Geosebeny
5	Rorripo nastudium-aqualicum	Water-cress
	Rose californica	California Rose
,	Saltugiha australis	Southern Gilla
	Senecio californicus	
	Senecia (locoidus	California Butterweed
	Sidalcoa malvaeflora	Bullerweed
		Chocker-bloom
	Sisymbrium sp.	Tumble Mostard
	Solidago colifornica	California Goldenrod
	Stechys ejugoides	Hedge-netite
	Stephenomeria sp.	Viriealhplant
	Streptenthus compostris	Southern Jewelflower
	Stylocline gnaphaliokles	Everlasting Nest-straw
	Tetradynile compse	Cotton-thorn
	Thysanocarpus ap	Fringepod
	Thchostenma partshii	Mountain Bluecuris
	Tropidocarpum gracile	Siender Dobie-pod
	Circonputs throlleys	Silver Puffs
	Viola purpurea	Oak Yellow Violet
3		Star Tellan applet
- (Other Flowering Plants:	
	apinas puplor.	-
3	intermedia.	
9	rossic night	1 1 1
10	upinua concuenta -	bajela lipinie
100	ENSTE MON	palety phone
70	auchy asquite.	
Te	anthy argula	
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Quino Checkerspot Butterfly Protocol Survey — Field Oata Sheet

Projec	t: Concentrix So	lar Project -N	fap #:Sur	vey 5x	in:	QCB Prot	tocol Su	rvey#		of	5
	TIME (24-bour)	Temp (FT):	White (avg/max)	14	ėc –			Sky			
Start	1230 HES	76°F	Ø->3min	0	-	Com	pakthy	CWALCHING.	drizza	STICKS*	
	1300 HRS	77°F	0	0		CHAST	2000		20.00		
	1400 Hes	20°F	Stol MOH	0			patchy	overcast	drizzie	shower	
	1500 HES			8		clear	patchy	CANAL CARRY	drizzie	strower	_
-	DOWNE	78°F	2->6MOH	100	-	clear) patchy	overcast	druzte	shower	
-						char	patchy	overcost	drizzla	shower	
_						clear	patchy	Cypraed	drazde	Chowsr	
End						clear	patchy	Overpast	drizzie	shower	
Habital	On-site (circle): open	sods, hilltops	ridges, rock outer	ops: soi	crusts, c	lay soils, old roads/	various n	ectar source	(2)		
		all and the second to			Total		_			-	Tota
	nalidae (Brushfooted			111		Hesperildae (Skip	opers)		500	1 1 1 2 - 11	5
	ydryas editha (Quino	Proposed Charles of the Control of t				Erynnis funeralis			g)		1
	ydryas chalcedona (F		arapot)		90	Erynnis Iristis (S					-
	salia leanira (Wright's					Erynnis propertiu	-		wing)		
	syne californica (Califo		_			Erynnis briza (S)					-
	iyne gabbil (Gabb's C				_	Pyrgus albescen			17)		
	iodes mylitte (Mylitta (nia coenia (Common					Hesperia jub a (.					3
	And the second s			_	171	Polites sabuleti (8
	Vanessa annabella (West Coast Lady) Vanessa etelenta (Red Admiral)			_		Megathymidae (G	and the second second	Andread and the contract of	A		-
	ssa cardui (Painted L			-		Megathymus yux	COS (TU	cea Grant Si	(ipper)		-
	556 virginiensis (Virgi			-		Other Butterflies	va swe		The same	S S S S S S S S S S S S S S S S S S S	
	Nymphelis californice (California Tortoiseshell)				Other Butterfiles:				The state of the s	-	
	analdae (Milkweed Butterflies)				PHOLISORR CATULLUS (Common SOOTYWING)				-		
	Daneus plexippus (Monarch)				NOWTHEAN W	SHITE -	SHIPPE	2		3	
	us gilippus (Queen)	.,		-				_	_		-
	ae (Satyrs)	Sall and	the control of the	CMOUNT	-		-	_		-	-
	onympha californica (6040×3040	_				_		-
	e (Whites, Sulphurs			COMP.	_		_		_		+
	rapas (Cabbage Wh		TO THE PARTY OF	U) AND COL	-		_	_			-
	s/symbril (Spring Wi		-						_		-
	Backeril (Beker's WI						_		_		-
	protodice (Common									-	+
Antho	charis sara (Sara Ora	engetip)									+
Antho	charis cethura (Felde	r's Orangetip)									+
Euchi	oe hyantis (Desert Pe	early Marble)		9.5							1
	s eurytheme (Orange										1
Collas	s harfordii (Harford's S	Sulphur)			- (
Natha	ilis iole (Dainty Sulphi	ur)		-							
Papillo	nidae (Swallowtails)		h, and the second	3/4		Notes:	61100	1987年,沿距		A STATE	
	o polyxenes (Desert E		all)								
	eurymedon (Pale si				il						
	o rutulus(Western Tig				-						
Carlotte Company	ado (Metalmarks)			114/187							
	imia mormo (Behr's N			and the same of	80						
Lycaen	idae (Hairstreaks an	d Blues)	4	理學院	-						
	trina ladon (Spring Az										-
	les marine (Marine Bi										
	idium exile (Western		Mh	-						-	
	opsyche lygdamus (S		invery blue)	-	1						
	ergus ceraunus (Edwi							-			
	somon (Acmon Blue)				2						
	es sonorensis (Sonor										
	hrys augustinus (Bro		Total Carlo		1						
	on melinus (Gray Hai		iirstreak)		1						
- NAME OF TAXABLE PARTY.	on monnus (Grav Hai	refreak)									
	s halesus (Great Purp	de Universe									

instructions

Please Place a Check Mark Beside Flowering Plants. Use Numbered Notes to Add Species Detail.

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirrhinum coulterlanum = AC, Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

0	Amsinckia menziesii :	Rencher's Fiddlenack
	Antirrhimum coulterlanum	Coulter's Snapdragon
	Antiminum nuttellienum	Nuttell's Snapdragon
	Asclepias fascicularis	Narrow-leaf Milkweed
	Boechere sp.	Rock Cress
	Calandrinia ciliata	Red Maids
	Calochartus concolor	Golden-bowl Mariposa Lily
	Calystegia longipes	Morning-glory
	Cemissonia sp.	Sun Cup
	Castilleia exerta	Paintbrush
	Caulanthus heterophylius	CONTRACT AND INCOME AND A SEC.
	Caulanthus simulans	San Diego Jeweiflower
	Ceanothus cuneatus	Payson's Caulanthus Buck Brush
	CONTRACTOR OF THE PROPERTY OF	
	Ceanothus graggil Ceanothus leucodermis	Cup-leaf-lilac
	Control to the second of the s	Chaparral Whitethorn
	Choonactia artemisifolia	White Pincushion
	Chaenuctis glabriuscula.	Yellow Pincustion
	Collinsia concolor	Clematis
		Southern Chinese Houses
	Cordylanthus rigidus	Dark-tip Sird's Beak
	Coreopsis californica	California Coreopsis
	Corethrogyne filaginifolia	Common Sand-aster
0	Cryptantha sp. Cucurbita foetidissima	Cryptantha
	Cucurona roeugissima	Calabazilla
	Descurainia sp.	Tansy-mustard
	Dicentre chrysantha	Golden Ear-drops
	Dichelostemme cepitetum	Blue Dicks
	Dudleya sp.	Dudleya
	Emmenanthe pendulifers	Whispering Bells
	Eriastrum sp.	Woolly-star
	Ericameria sp.	Goldenbush
	Erigeron follosus	Leafy Daisy
	Eriodictyon trichocalyx	Hairy Yerba Santa
	nogan um fascicula lum	Inland California Buckwheat
	noganum sp.	Buckwheat
	Enophyllum sp.	Golden-yarrow
	Erodium cicutarium*	Red-stern Storksbill
	Erysismum capitatum Eschscholzia californica	Western Wallflower
	The state of the s	California Poppy
	Eucrypta chrysanthemifolia Euthemia occidentalis	Spotted Hideseed
	Garrya veatchii	Western Goldenrod
0 (Gilia sp.	Canyon Silk Tassel
200	Sind Sp. Transplant John Timber	THE COURT OF THE PERSON AND PARTY.
	3naphalium	Cudweed Adaption Cristian State Control of the Con
	Guillenia lasiophylla	California Mustard
	Sutterrezie sarothree	Broom Matchwead
	felictrophim curessavicum	Salt Heliotrope
PERSONAL PROPERTY.	dirshfeldia incana amium amplexicavie	Short-pod Mustard
		Hanbit California
(asthenia gracilis	Common Goldfields
	avia glandulosa	White Layle
	epidium sp.	Pepperweed
	Inanthus belius	Desert Beauty
	Inanthus dichotomus	Evening Snow
	onicera subspicata	Johnston's Honeysuckle
	falacothrix californica	California Dandelion
	Aalacothrix clevelandli	Cleveland's Malacothrix
	darah тасгосагрия	Wild-cucumber
	/larrubium vulgare*	Horehound
	dabicaria matricarioides*	Common Pineapple-weed
	dentzetla veatchiena	Veatch's Stick-leak
· 4	dicrosteris gracilis	Slender Phlox
	fimulus sp.	Monkeyflower
	lemophila menzeisii	Small-flower Baby Blue Eyes
0 - 0	Probanche bulbosa	Chaparral Broom-rape

Osmadenia tenella	Usmadenia
Paeonia californica	Osmadenia California Peony
Poctocerya sp.	Pediocarya
Phacella sp.	Phecella
Pholistoma membranac	
Plaglobothrys sp.	Popcornflower
Plantago paragonica	Desert Plantain
Platysternon californicus	Cream Cups
Prunus ilicifolla	Holly-leaf Cherry
Refinesquia neomexica	
Ribes quercetorum	Oak Gooseberry
Rompa nasturtium-aque	
Rosa californica Saltuqua australis	California Rose
	Southern Gilia
Senecio californicus Senecio flaccidus	California Butterweed Butterweed
Sidakea malvaaflora	Checker-bloom
Sisymbrium sp.	Turnble Muslard
Solidago californica	California Goldenrod
Stachys ajugoides	Hedge-nettle
Stephanomeria sp.	Wreathplant
Streptanthus campestris	
Stylocline græphalioides	
Tetradymia comosa	Cotton-thorn
Thysanocarpus sp.	Fringepod
Trichostemma parishii	Mountain Bluecurls
Tropidocarpum gracila	Slender Dobie-pod
	and the second s
BARTAL ALL AND MANAGEMENT CONTRACTOR	Silver Puffs
Viole purpuree	Silver Puffs Oak Yellow Violet
Viole purpuree	Oak Yellow Violet
Viole purpures Other Flowering Plants RHUS OVATA	Cak Yellow Violet 5: SUGRE BUSH
Viole purpures Other Flowering Plants RHUS OVATA	Oak Yellow Violet
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Quino Checkerspot Butterfly Protocol Survey — Field Date Sheet

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	-			-	OCB Prolocol Survey # nf	5
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Hart	-		1	-	State (1997) CHARGE TOTAL	
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				Total	Acest Aces 1	Tota
lymphalidae (Brushfoot	od Butterflies) A	Veak	Acea 1		Hesperiidae (akippers)	1
Euphydryas oddha (Quin		4.1.14	sheed 1		Eryanis kineralis (Funereal Duskywing)	
Euphydryas chalcedona		rspot)			Erynnis tristle (Sed Duskywing)	_
Thessalia leanire (Wright					Erynnis propertius (Propertius Duskywing)	1
Chlosyna californica (Cal					Erynnis brizo (Sleepy Duskeywing)	-
Chlosyne gabbii (Gabb's		1	C		Pyrgus albescens (Checkered Skipper)	
Phyclodes mylitta (Myllata	a Crescent		100	and the same	Hespena julia (Jubia Skipper)	1
Junovile coeren (Common Venessa ermabella (Ves	d Coast Land	THE LIT	111	11	Polites sabuleti (Sandh II Skipper)	3
Vanessa atalania (Red A			1	-	MegMhymldae (Giant Skippers)	-
Vanessa cardui (Painted	CONTROL OF THE PARTY OF THE PAR		-		Magalhymus yuydao (Yudda Clant Skipper)	
Variossa virginionsis (Vir	the state of the s		1	_	Other Butterfiles:	-
Nymphalis californica (C		shelli	-			14
anaidae (Milkweed Butt		an result.	1		Square spetted places without	-7
Danaus plexippus (Mona	The second second		1	_	Beenad In	+-
Dansus gilippus (Queen)					Devision	
atyridae (Satyrs)						
Coenonympha callfornica	(Common Califo	Halgnish erfor				1
leridae (Whites, Sulphus	rs)		,			
Pieris rapae (Cabbage W	inita)					
Pontia sisymbrii (Spring t	Mile) /					
Ponha backers (Beker's \						
Provine protodice (Commo						
Anthocharis sara (Sara C						
Anthochans cathura (Feli						
Euchloa hyantis (Desert)						
Collas eurytheme (Orang	a Sulphur) [/ [!		6		
Colles harfordii (Harford's	Company of the Compan					
Nathalis iole (Dainty Sulp			_		Notes:	
apilionidae (Swallowtai) Papilio polyxenes (Deser		100			HOURS:	-
Papilio eurymedon (Pala		111		-		-
Papillo rutulus(Western T		1				-
iodinlade (Metalmarks)	-ga- ottoromon)	-/				-
Apodemia momo (Behr's	Motalmado (1)	I WE'D	HUH	74		1
ycasnidae (Hairstroaks		ALLIA	ti but it			
Colestone ladon (Suring).		_				1
Luptotos marina (Marina						
Brephidium exila (Wester	n Pygmy Blue)	-	1			
tilancopsycha lygdamus	A the contract and contract the contract to	ilivery blue)	1			
Hemiargus coraunus (Ed						
Icana acmon (Acmon Blu		1		9		
Philotes sonorensis (Son	oran Hiuo)			1377		
Callophrys augustinus (B		1				
Callophrys parploxa (Per		irefreak)				
Strymon melinus (Gray H	(niestvenic)					
Allicies halesus (Great Pu						- 1

untial Nectoring or Host Plants for Quino Checkerspot Butterfly in Bouleverd, California (Concentrix Solar)

auditons

Please Place a Check Mark Beside Flowering Plants, Use Numbered Notes to Add Species Detail

PLEASE RECORD HOST PLANTS ON GPS See Codes Below:

Antirchinum coulterionum = AC Collinsia concolor = CC Cordylanthus rigidus = CR Plantago patagonica = PP

Amstrokla matizlacil Antirrhimum coultarianum

Anbrehmum militatismism

Atalepias fascicalans

Roechere sp. Catandrinta cillata

Calcennatus concolor Calystoqua longgres

Синтеворіа кр. Castilloja exerta:

Capienthus heterophythus Capitanthus simulans

Chanothus curpatus Connathus orecom

Cospothus levoudermis Chaenactis artemislifolis Chaernetis glabriuscule

Clematis sp.

Collinsia concolor Cordylenthus rigidus Compass californica

Corethrogyne filegintolia Cryptonina sp

Cucurbita metrolissima Descensions so

Dicentra chrysantha Dichelostemma capitatum

Dudleye sp

Emmonenthe pendulifera

Eriostnim ap Erlcomenn sp. Erigeron foliosus

Eriodictyon trichocalyx Eriogonum fasciculatum

Erlogonum sp. Enophyllum sp. Erodium cicutarium*

Erysismum capitalum Eschsobolyle californica

Eucryptu chrysanthemilolia Eulharda occidentalis.

Garrya veutchir

Otto 80 Graphalium

Guillania lasiophylla

Guliamizia swethrati Holiatrophim curassavicum

Hirshfeldia Incana

Lamium amploxicaute Lasthenia gracilis

Layia glandulosa Lepidhim so.

Lingathus bellus Linanthus dichotomus

Lonicom subspicata Malacothrix californica Malacothrix clevelendii

Marah macrocarpus Marrubium vulgare* Maincarle matriconoides*

Manizella vealchiana Microstens gracilla

Mimulus ap.

Машорінія протенвії Grobanche hulbosn

Rancher's Fiddleneck

Coulter's Snapdragon Nuttall's Snapgragan Narrow-leaf Milkwood

Rock Cress Red Mekis

Golden-bowl Manposa Lity

Momerg-glory Sun Cup. Paintbough

San Diogo Jawelliower Payson's Cautanthus

Buck Brush Cup-teuf-Iliac Chapairal Whitethern

White Pincustion. Yallow Planustion.

Comatis

Southern Chinese Houses Dark-lip Bird's Book

Cahlonija Corpopsis Common Send-aster

Cryptentha Calebardia Tapsy-musland Golden Eat-drops Blue Dicks

Douteys Whispering Berls Wootly-star Goldonbush

Leafy Dogsy Hairy Yerba Sente Inland California Buckwheel

Buckwheat Golden-yourow Red-stem Storkshill rewollskiW malsetV California Poppy

Spotted Hidaseed Western Goldenrod Conyon Silk Tasset

Gilia Cuttweed California Mustard Broom Matchweed Salt Heliotrope

Short-poor Mustard Невыя

Common Goldlielde White Layin

Pepperweed Detert Beauty Evening Snow

Johnston's Honeysuckie California Dangelion

Creveland's Melacothrix Wild-cucumber

Hotehound

Common Pineapple-wond Véatch's Stick-leak

Slender Phlox Monkeyflower

Small-llower Baby Blue Eyes Chaperral Broom-rape

Osmadenia terrella Pagonia culifornios

Pectocarya sp. Phacello sp. Wishest 5 Pholistoma membranaueum

Plaglobothrys sp Plantago paragonica Platysternon cultionneus

Printua iliulfolia Refinesquie neomericana

Ribos quercatorum Romina nasturlium aquaticum

Rosa catilombia Saltugiba australis Serieuro californicus

Senecia Recodus Sidelces makenations

Staymonium ap. Solidago californica Stachys ajugoides

Stephanonyona sp. Streptanthus cempeatus

Styloutine gnaphalioldes Tetradymia comosa

Thysanucarpus sp. Umpappus IIndleyi

Trichostemma parishii Tropidocerpum gracile Viola purpurae

Osinadenia California Peony Pactocarva:

Phaceta White Flesia Flower Popcomfower Desert Plantein

Сте4т Сира Holly leaf Charry Desert Chicory

Oak Gooseberry Water-cress

Catifornia Rose Southern Gilla California Butterweed

Butterweed

Chacker-bloom Tumble Mustard

California Goldenrod Hedge-nattle

Wreathplant Southern Jewelflower

Evertesting Neat-straw College/harn

Fringapod Mountain Bhiacuis Stander Dobig-port

Silver Puffs Osk Yellow Violet

Other Flowering Plante:

Rare Wildlife or Rare Plants-

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APPENDIX D POTENTIAL NECTARING SOURCES AND HOST PLANTS DETECTED DURING QUINO SURVEYS

Appendix D Potential Nectaring Sources and Host Plant Species Detected During Quino Surveys^A

			Survey Week					
Scientific Name	Common Name	1	2	3	4	5	6	
Amsinckia menziesii	rancher's fiddleneck	Х	Х	Х	Х	Х	X	
Boechera pulchra	beautiful rock cress	X	X	X	X	X	X	
Calandrinia ciliata	red maids			Х	Х	Х		
Calystegia longipes	morning-glory				Х	Х		
Camissonia sp.	sun cup	Х	Х	Х	Х	Х)	
Castilleja subinclusa	Indian paintbrush					Х		
Caulanthus affinis	Indian paintbrush	Х	Х					
Caulanthus heterophyllus	San Diego jewelflower			Х	Х	Х		
Caulanthus simulans	Payson's caulanthus	Х						
Ceanothus cuneatus	buck brush	Х	Х		Х			
Ceanothus greggii	cup-leaf lilac	Х	Х	Х	Х	Х	2	
Ceanothus leucodermis	chaparral whitethorn		Х	Х				
Chaenactis glabriuscula	yellow pincushion						2	
Clematis sp.	clematis	Х		Х		Х)	
Collinsia concolor	southern Chinese houses ^B		х			х	7	
Cordylanthus rigidus	dark-tip bird's beak			х			T	
Coreopsis californica	California coreopsis	х	х	х	х	х	2	
Corethrogyne filaginifolia	common sand-aster						1	
Cryptantha sp.	cryptantha	х	х	х	х	х		
Descurainia sp.	tansy-mustard	Х	Х	Х	Х	Х		
Dichelostemma capitatum	blue dicks		Х			Х	7	
Dudleya sp.	dudleya							
Emmenanthe pendulifera	whispering bells			х				
Eriastrum sp.	woolly-stars		х	X				
Ericameria sp.	goldenbush	х	X	X	х	х		
Erigeron foliosus	leafy daisy		_	_				
Eriodictyon trichocalyx	hairy yerba santa			х				
Eriogonum fasciculatum	inland California buckwheat		х	X		Х		
Eriogonum sp.	buckwheat		_	_	Х	X	2	
Eriogonum wrightii	bastardsage			Х	^	^	ť	
Eriophyllum confertiflorum.	golden-yarrow		х	X	Х	Х	1	
Erodium cicutarium	red-stem storksbill	х	X	X	X	X		
Erysismum capitatum	western wallflower	^	^	^	^	X	ť	
Erysismum capitatum Eschscholzia californica	California poppy	х	Х	Х	Х	X	1	
Eucrypta chrysanthemifolia	spotted hideseed	X	^	X	^	^	ť	
Garrya veatchii	canyon silk tassel	X	Х	X	Х			
Garrya veateriii Gilia sp.	gilia	^	^	X		_	+	
	cudweed		-	X	Х	Х	-	
Gnaphalium sp. Guillenia lasiophylla	California mustard		-	-		· ·	2	
		Х				X	Η,	
Gutierrezia sarothrae	broom matchweed			Х	X	X	2	
Heliotropium curassavicum Hirshfeldia incana	salt heliotrope				X	X	Η,	
	short-pod mustard	X	X	X	X	X	1	
Lasthenia gracilis	common goldfields	X	X	X	X	X	2	
Layia glandulosa	white layia	Х	Х	X	X	X	2	
Lepidium sp.	pepperweed			X	X	X	2	
Linanthus bellus	desert beauty	Х	Х	Х	Х	Х	2	
Lupinus bicolor	miniature lupine		-	-		Х	╄	
Lupinus concinnus	bajada lupine		 	Х		Х	\vdash	
Linanthus dichotomus	evening snow		 	 	Х	X	\vdash	
						1	1 1	
Lonicera subspicata Malacothrix californica	Johnston's honeysuckle California dandelion			X		х		

		Survey Week					
Scientific Name	Common Name	1	2	3	4	5	6
Marrubium vulgare	horehound						Х
Matricaria matricarioides	common pineapple-weed	Х					
Mentzelia veatchiana	Veatch's stick-leak						Х
Nemophila menzeisii	small-flower baby blue eyes	Х	Х	Х		Х	
Orobanche bulbosa	chaparral broom-rape						Х
Osmadenia tenella	osmadenia				Х		
Paeonia californica	California peony		Х				
Pectocarya sp.	pectocarya	Х	Х	Х	Х	Х	Х
Phacelia sp.	phacelia	Х	Х	Х	Х	Х	Х
Phacelia distans	distant phacelia			Х			
Pholistoma membranaceum	white fiesta flower					Х	
Plagiobothrys sp.	popcornflower	x x x		Х	Х	Х	Х
Rhus ovata	sugar bush		Х	Х	Х	Х	Х
Rhus trilobata	skunkbush sumac	Х					
Platystemon californicus	cream cups	x x x					
Prunus ilicifolia	holly-leaf cherry	x x					
Ribes quercetorum	oak gooseberry			Х			Х
Senecio californicus	California butterweed	Х	Х	Х	Х	Х	Х
Sisymbrium sp.	tumble mustard	Х	Х	Х	Х	Х	Х
Solidago californica	California goldenrod					Х	Х
Streptanthus campestris	southern jewelflower			Х		Х	
Stylocline gnaphalioides	everlasting nest-straw		Х	Х	Х	Х	Х
Thysanocarpus sp.	fringepod	x x		Х			
Trichostemma parishii	mountain bluecurls		Х			Х	Х
Uropappus lindleyi	silver puffs		Х	Х	Х		Х

A The Quino survey area (within the LanWest project site) was initially part of a larger survey area that was separated into three separate CPV projects (LanWest Solar Farm, LanEast Solar Farm, and Rugged Solar Farm) after the completion of protocol Quino checkerspot butterfly (*Euphydryas editha quino*) surveys. LanEast Solar Farm is located adjacent to the proposed project (on the eastern boundary of LanWest). Rugged Solar Farm is located directly north of Interstate 8. All three project sites were surveyed at the same time for Quino and, therefore, the weekly potential nectaring and host plant species detected list is the same for all three project sites.

Bold = potential Quino larval host plant species.

^B This host plant was only found on Rugged Solar.

APPENDIX E VERTEBRATE WILDLIFE SPECIES DETECTED DURING QUINO SURVEYS

Appendix E Vertebrate Wildlife Species Detected During Quino Surveys^A

Scientific Name	Common Name
REPTILES	
Order Squamata	Lizards and Snakes
Family Phrynosomatidae	
Phrynosoma coronatum blainvillii ^B	coast horned lizard ^B
Family Teiidae	
Cnemidophorus tigris ^C	coastal whiptail ^C
BIRDS	•
Order Ciconiiformes	Herons, Storks, Ibises, and Relatives
Family Ardeidae	, , ,
Butorides virescens	green heron
Family Cathartidae	
Cathartes aura	turkey vulture
Order Falconiformes	Diurnal Birds of Prey
Family Accipitridae	•
Buteo jamaicensis	red-tailed hawk
Order Galliformes	Magapodes, Curassows, Pheasants, and
Family Odantasharidas	Relatives
Family Odontophoridae	California avail
Callipepla californica	California quail
Order Charadriiformes	Shorebirds, Gulls, and Relatives
Family Charadriidae	1.911
Charadrius vociferus	killdeer
Order Columbiformes	Pigeons and Doves
Family Columbidae	
Zenaida macroura	mourning dove
Streptopelia decaocto	Eurasian collared-dove
Order Piciformes	Woodpeckers
Family Picidae	
Melanerpes formicivorus	acorn woodpecker
Colaptes auratus	northern flicker
Order Passeriformes	Song birds
Family Tyrannidae	On the standard
Sayornis saya	Say's phoebe
Tyrannus verticalis	western kingbird
Family Corvidae	
Corvus corax	common raven
Aphelocoma californica	western scrub jay
Family Paridae	1.00
Baeolophus inornatus	oak titmouse
Family Hirundinidae	Pref H.
Petrocheliodon pyrrhonota	cliff swallow
Stelgidopteryx serripennis	northern rough-winged swallow
Family Aegithalidae	1. 100
Psaltriparus minimus	bushtit
Family Troglodytidae	
Thryomanes bewickii	Bewick's wren
Troglodytes aedon	house wren
Family Sylviidae	
Polioptila caerulea obscura	blue-gray gnatcatcher
Family Turdidae	
Sialia mexicana	western bluebird
Family Timaliidae	
Chamaea fasciata	wrentit

Scientific Name	Common Name
Family Regulidae	
Regulus calendula	ruby-crowned kinglet
Family Mimidae	
Mimus polyglottos	northern mockingbird
Family Sturnidae	
Sturnus vularis	European starling
Family Parulidae	
Dendroica coronata	yellow-rumped warbler
Vermivora ruficapilla	Nashville warbler
Vermivora celata	orange-crowned warbler
Dendroica petechia ^B	yellow warbler ^B
Family Emberizidae	
Amphispiza bilineata	black-throated sparrow
Spizella breweri	Brewer's sparrow
Pipilo crissalis	California towhee
Pipilo maculates	spotted towhee
Junco hyemalis	dark-eyed junco
Chondestes grammacus	lark sparrow
Zonotrichia leucophrys	white-crowned sparrow
Family Icteridae	
Euphagus cyanocephalus	Brewer's blackbird
Agelaius tricolor ^B	Tricolored blackbird ^B
Icterus bullockii	Bullock's oriole
Family Fringillidae	
Carpodacus mexicanus	house finch
MAMMALS	·
Order Lagomorpha	Rabbits, Hares, and Pikas
Family Leporidae	
Sylvilagus audubonii	Audubon's cottontail
Lepus californica bennettii ⁸	San Diego black-tailed jackrabbit ^B

A The Quino survey area (within the LanWest project site) was initially part of a larger survey area that was separated into three separate CPV projects (LanWest Solar Farm, LanEast Solar Farm, and Rugged Solar Farm) after the completion of protocol Quino checkerspot butterfly (*Euphydryas editha quino*) surveys. LanEast Solar Farm is located adjacent to the proposed project (on the eastern boundary of LanWest). Rugged Solar Farm is located directly north of Interstate 8. All three sites were surveyed for Quino at the same time. This list of vertebrate wildlife species detected represents species detected for both the LanWest and LanEast projects (but does not include observations from the Rugged Solar site).

B State species of special concern (State of California 2011)

^c State special animal (State of California 2011)

APPENDIX C JURISDICTIONAL DELINEATION LETTER REPORT



AECOM 1420 Kettner Boulevard Suite 500 San Diego, CA 92101 www.aecom.com 619.233.1454 tel 619.233.0952 fax

January 30, 2012

Therese Bradford, Chief, San Diego Section U.S. Army Corps of Engineers 6010 Hidden Valley Road Carlsbad, CA 92011

Re: LanWest Solar Farm LLC Jurisdictional Delineation Letter Report

Dear Ms. Bradford:

Introduction

LanWest Solar Farm LLC, a subsidiary of Soitec Solar Development LLC, proposes to develop the 5.44-megawatt (MW) photovoltaic LanWest Solar Farm (Proposed Project) located in Boulevard, California (Attachment A, Figures 1 and 2 [all figures referred to in this report are located within Attachment A]). The approximate 54.66-acre Proposed Project (hereinafter referred to as the project area [Figure 3]) includes the primary solar energy facilities (i.e., the solar array field, transformers and capacitors, switchyard, and a direct tie-in to existing distribution system facilities) and the associated construction and operations footprint.

As part of the environmental review process, this jurisdictional delineation letter report (JDLR) outlines and summarizes the latest federal and state guidance and methodologies employed in conducting a formal delineation for jurisdictional waters of the U.S. and State of California (state); the results of the fieldwork; and the amount, type, and location of the formally delineated potential jurisdictional waters occurring within the project area. This JDLR discusses the type and amount of potentially regulated aquatic resources occurring within the approximately 54.66-acre project area (the project area is also synonymous with the delineation survey area [the construction limits of the Proposed Project]) for the project.¹

¹ Included in the project area is the approximately 19.11-acre transmission corridor for the Tule Wind Project, located at the southern most portion of the project area extending along Old Highway 80.



Summary

Within the project area, approximately 0.66 acre² of potential jurisdictional waters of the U.S.^{3,4} and state⁵ were formally delineated. Of these approximately 0.66 acre of delineated aquatic features, approximately 0.40 acre are potential jurisdictional waters of the U.S. and state (composed of unvegetated ephemeral dry wash [other waters of the U.S.]). Approximately 0.26 acre were formally delineated as potential jurisdictional waters of the state exclusively⁶ (composed of southern willow scrub [0.10 acre] and unvegetated swale [0.16 acre]) for the total area of 0.66 acre of potential jurisdictional waters of the U.S. and state.⁷

Regulatory Framework

Wetlands and other aquatic environments/habitats occurring within California and San Diego County (County) are regulated under the following federal and state laws and County ordinances.

Federal Regulations

U.S. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity that would result in the discharge of dredged or fill material into jurisdictional waters of the U.S., which include those waters listed in 33 Code of Federal Regulations (CFR) Part 328 (Definitions). USACE, with oversight by the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 Permits.

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Jurisdictional waters of the U.S. include jurisdictional waters of the state.

⁶ Relevant to CDFG and RWQCB permitting only.

All acreages are rounded to the nearest hundredth (which may account for minor rounding error).

For this Proposed Project, jurisdictional waters of the U.S. are under the purview of the U.S. Army Corps of Engineers (USACE), with oversight by the U.S. Environmental Protection Agency (USEPA), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Game (CDFG), if applicable. Final acreages of jurisdictional waters of the U.S. are based on the jurisdictional determination (JD) process per the March 30, 2007, USACE Jurisdictional Determination Form Instructional Guidebook; the June 5, 2007, Approved JD Form; the June 5, 2007, Joint Guidance Memorandum; the December 2, 2008, Guidance Memorandum; and Regulatory Guidance Letter (RGL) 08-02 (if RGL 08-02 is deemed applicable and appropriate [i.e., the permit applicant or other "affected party" can decline to request and obtain an Approved JD and elect to use a Preliminary JD instead] for nonbinding written indication that there may be waters of the U.S., including wetlands, on a parcel or indications of the approximate location[s] of waters of the U.S. or wetlands on a parcel).

State jurisdictions often exceed, in lateral extent and area, federal jurisdiction. Therefore, jurisdictional waters of the U.S. include waters of the state. Although federal and state jurisdictions do overlap, they would remain distinct for regulatory administration and permitting purposes.

Wetlands and other aquatic habitats and features are not regulated as jurisdictional waters by San Diego County but as "Environmentally Sensitive Lands" (see Regulatory Framework, below).



Pursuant to Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB) certifies that any discharge into jurisdictional waters of the U.S. will comply with state water quality standards. The RWQCB, as delegated by USEPA, has the principal authority to issue a CWA Section 401 water quality certification or waiver.

State Regulations

California Department of Fish and Game

Pursuant to Section 1600 *et seq.* of the California Fish and Game Code (CFGC), the California Department of Fish and Game (CDFG) regulates activities of an applicant's project that would substantially alter the flow, bed, channel, or bank of streams or lakes, unless certain conditions outlined by CDFG are met by the applicant. The limits of CDFG jurisdiction are defined in CFGC Section 1600 *et seq.* as the "bed, channel, or bank of any river, stream,⁸ or lake designated by CDFG in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit." However, in practice, CDFG usually extends its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation, whichever is wider.

For desert aquatic features, CDFG provides specific guidance concerning its regulatory administration over jurisdictional waters of the state in California Code of Regulations (CCR) Title 14 Section 720 (Designation of Waters of Department Interest):

For the purpose of implementing Sections 1601 and 1603 of the Fish and Game Code, which requires submission to [CDFG] of general plans sufficient to indicate the nature of a project for construction by or on behalf of any person, governmental agency, state or local, and any public utility, of any project which will divert, obstruct, or change the natural flow or bed of any river, stream, or lake designated by [CDFG], or will use material from the streambeds designated by the department, all rivers, streams, lakes, and streambeds in the State of California, including all rivers, streams, and streambeds, which may have intermittent flows of water, are hereby designated for such purpose. [Italics added.]

Regional Water Quality Control Board

Pursuant to Section 13000 *et seq.* of the California Water Code (CWC) (the 1969 Porter-Cologne Water Quality Control Act [Porter-Cologne]), the RWQCB is authorized to regulate any activity that would result in discharges of waste and fill material into waters of the state, including "isolated" waters and wetlands. Waters of the state include any surface or groundwater within the boundaries of the state (CWC Section 13050[e]). Porter-Cologne

⁸ The California Code of Regulations (CCR) (Title 14 CCR 1.72) defines a stream as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation."

This also includes the habitat upon which they depend for continued viability (CFGC Division 5, Chapter 1, Section 45, and Division 2, Chapter 1, Section 711.2[a]).



authorizes the State Water Resources Control Board (SWRCB) to adopt, review, and revise policies for all waters of the state, and directs the RWQCB to develop regional Basin Plans. CWC Section 13170 also authorizes SWRCB to adopt water quality control plans on its own initiative. The Water Quality Control Plan for the Colorado River Basin (RWQCB Region 7), as amended, is designed to preserve and enhance the quality of water resources. The purpose of the plan is to designate beneficial uses of surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives within RWQCB Region 7 (RWQCB 1993).

Local Regulations

County of San Diego

Pursuant to Chapter 6, Division 6, Title 8 of the San Diego County Code (the County of San Diego Resource Protection Ordinance [RPO]), there are special controls on discretionary development (i.e., requiring a permit from the Department of Planning and Land Use [DPLU]) for the County's "Environmentally Sensitive Lands," which include (specific to this report) wetlands, floodplains, riparian habitat, and "Sensitive Habitat Lands" as defined by Section 86.602 of the RPO. The RPO is a compilation of County Ordinance Nos. 7968, 7739, 7685, and 7631, and strengthens methods adopted by the County to guarantee the preservation of sensitive lands (Ordinance No. 9842). The RPO protects such sensitive lands by requiring a Resource Protection Study for certain discretionary projects. If the Resource Protection Study identifies RPO-defined wetlands (see below), RPO wetland buffers, or RPO sensitive habitat lands, then avoidance or avoidance to the maximum extent feasible and mitigation are required as specified under the code.

According to Sec. 86.602 of Chapter 6 of the RPO, wetlands and wetland buffers are defined as follows:

(q) "Wetland":

- (1) Lands having one or more of the following attributes are "wetlands":
 - (aa) At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);
 - (bb) The substratum is predominantly undrained hydric soil; or
 - (cc) An ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.



- (2) Notwithstanding paragraph (1) above, the following shall not be considered "wetlands": 10
 - (aa) Lands which have attribute(s) specified in paragraph (1) solely due to manmade structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Land Use determines that they:
 - (i) Have negligible biological function or value as wetlands;
 - (ii) Are small and geographically isolated from other wetland systems;
 - (iii) Are not vernal pools; and
 - (iv) Do not have substantial or locally important populations of wetland dependent sensitive species.
 - (bb) Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria as determined by the Director of Planning and Land Use:
 - Have negligible biological function or value as wetlands even if restored to the extent feasible; and
 - (ii) Do not have substantial or locally important populations of wetland dependent sensitive species.
- (r) "Wetland Buffer": Lands that provide a buffer area of an appropriate size to protect the environmental and functional habitat values of the wetland, or which are integrally important in supporting the full range of the wetland and adjacent upland biological community. Buffer widths shall be 50 to 200 feet from the edge of the wetland as appropriate based on the above factors. Where oak woodland occurs adjacent to the wetland, the wetland buffer shall include the entirety of the oak habitat (not to exceed 200 feet in width).

The RPO applies to this project because the site contains features that meet the County definitions of wetlands, wetland buffers, and riparian habitat.¹¹

Purpose of Jurisdictional Delineation

The purpose of performing a formal jurisdictional delineation is to identify the absence and/or presence (including the type, location, boundaries, and acreages) of potential jurisdictional waters of the U.S., state, and County (including wetlands) occurring within the project area. Once the presence or absence of potential jurisdictional waters is formally delineated, the following can occur:

1. This JDLR can be used to make any proactive or unforeseen changes in project design to avoid and/or minimize potential impacts to regulated waters.

¹¹ Section 86.605 of the RPO also outlines exemptions to Environmentally Sensitive Lands (including wetlands).

¹⁰ Activities on lands not constituting County-defined wetlands may still be subject to mitigation, avoidance, and permitting requirements pursuant to other applicable County, state, and federal regulations (see federal and state regulatory frameworks, above).



- USACE can conduct the appropriate jurisdictional determination (JD) (see below).
 (This JDLR is intended to provide the information and documentation necessary for USACE to make this determination.)
- 3. The results of this JDLR can be verified by the requisite federal, state, and local agencies (e.g., CDFG, DPLU, RWQCB, and USACE) to concur about jurisdictional waters that are under their regulatory administration.
- 4. Where it is determined that there would be potentially permanent and/or temporary impacts to jurisdictional waters related to the project, the project applicant would apply for and receive the following requisite authorizations, permits, and compliances:
 - Authorization under Section 404 of the CWA, if applicable (as regulated by USACE with oversight by USEPA).¹²
 - Certification of compliance under Section 401 of the CWA, if applicable (as regulated by the RWQCB).¹³
 - Issuance of Waste Discharge Requirements or waiver under Article 4 of Porter-Cologne, if applicable (as regulated by the RWQCB).
 - CFGC Chapter 6 Section 1600 et seq., if applicable (as regulate by CDFG). 15
 - Issuance of discretionary development permits and/or determining compliance under Section 86.602 of the RPO, if applicable by DPLU.

Purpose of Project

In addition to federal policy, California has long-established energy policies to promote renewable electricity generation. Established in 2002 under Senate Bill (SB) 1078 and accelerated in 2006 under SB 107, California's Renewables Portfolio Standard (RPS) is one of the most ambitious renewable energy standards in the United States. The RPS program required investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources until they reach 20% by 2010. In November 2008, California's governor issued Executive Order (EO) S-14-08 requiring an increase in the percentage of electricity generated by renewable

¹⁵ California Code of Regulations (CCR) Title 14, Division 1.

¹² 40 CFR Part 230.

Maintaining water quality standards under CWA Section 401 would only apply to this project if it has been determined by USACE that some or all of these delineated waters occurring within the survey area are jurisdictional waters of the U.S. and that a discharge of waste would occur to or within jurisdictional waters of the U.S. If USACE/USEPA determines that no jurisdictional waters of the U.S. occur within the project area, then California Water Code Section 13000 et seq.(e.g., Porter-Cologne) would apply to any "discharge of waste" into state waters (see Regulatory Framework, above).

Waste into state waters (see Regulatory Framework, above).
 If it is determined by USACE that no federal waters occur within the survey area or if no impact (discharge of dredge or fill) would occur to jurisdictional waters of the U.S. as a result of the Proposed Project.



resources to 33% by 2020.¹⁶ EO S-14-08 also directed state agencies to streamline regulatory processes and minimize environmental impacts associated with this development.¹⁷ This project is intended to contribute to meeting the previously established 33% state goal.

Project Description

Project Components

The Proposed Project is a concentrating photovoltaic (CPV) power plant with alternating current (AC) generating capacity up to approximately 5.44 megawatts (MW) AC. The Proposed Project would be composed of as many as approximately 264 CPV trackers grouped into four building blocks with up to about 66 trackers and one pair of 630- to 680-kilovolt (kV) inverters per building block. Each inverter pair is equipped with a small step-up transformer to step the voltage up to 12.5 kV, at which level it will interconnect to the local distribution system. The AC inverter capacity determines the nameplate capacity of each building block to be 1.26 to 1.36 MW AC; therefore, with four building blocks and two inverters per building block, the total project capacity is 5.0 to 5.4 MW AC. The Proposed Project would also include an electrical collection system, communication lines within each building block, the construction of a small switch station at or near the southwest corner of the project area, and a 12.5kV dedicated generation tie in (gen-tie) line from the switch station across Old Highway 80 and southwest to the Boulevard substation, a distance of approximately 0.75 mile. Additionally, approximately 17.98 additional acres are included in the project area and would be designated as project open space.

Each building block in its standard configuration measures approximately 656 feet east/west and 531 feet north/south and is comprised of up to 66 Soitec Concentrix^R CX-S530 dual-axis trackers. Trackers are arranged generally in an array comprised of 6 to 8 east/west rows with up to 8 to 12 trackers in each row. Spacing between trackers is 69 feet north/south and 82 feet east/west, subject to reasonable adjustment to accommodate site-specific constraints (i.e. site topography). Power within each building block is delivered through a 1,000-volt (V) direct current (DC) underground collection system from the trackers to the pair of inverters. Each inverter pair would be equipped with a step up transformer to convert the power from the 1.26kV or 1.36 kV (depending on the inverter capacity) on the "low side" to 12.5 kV on the "high side".

Individual tracker dimensions are approximately 48 feet across by 24 feet tall. Each tracker would be mounted on a 28-inch diameter steel post likely to be vibration pile-driven or

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (AB 32; Statutes of 2006, chapter 488), creates a comprehensive, multi-year program to reduce greenhouse gas emissions to 1990 levels by the year 2020. Executive Order (EO) S-21-09 was issued to adopt a regulation requiring the state's load-serving

entities to meet a 33% renewable energy target for the state of California by 2020.

The control of California by 2020.

EO S-21-09 was signed by California's governor on September 15, 2009, directing the California Air Resources Board to adopt regulations requiring 33% of electricity sold in the state to come from renewable energy by 2020.



integrated into a concrete foundation designed to suit the onsite surface and subsurface conditions and materials. In its most vertical position, the top of each tracker would not be more than 35 feet above grade and the lower edge would not be less than 1 foot above the ground. In its horizontal "stow" mode (for high winds); each tracker would have a minimum ground clearance of 11 feet. Solar CPV modules are mounted on and comprise, en masse, the surface of each tracker. The dimensions, maximum height, and ground clearance for all trackers would be the same.

The Proposed Project site would be fenced along the entire property boundary for security. Signage for electrical safety would be placed along the perimeter of the project area warning the public of the high voltage and the need to keep out as well as within the project where appropriate. Some localized security related lighting, on-site security personnel, and/or remotely monitored alarm system may be required during construction. During operations, while no use of lighting as a preventative measure or permanent on-site security presence is anticipated, approval for installation of remote monitored cameras and alarm system(s) and for perimeter and safety lighting is proposed with such lighting to be utilized only on an asneeded basis for emergencies, protection against security breach, or unscheduled maintenance and trouble shooting (such as may be occasionally required).

Power from the Proposed Project would be delivered to the nearby Boulevard substation by a dedicated 12.5 kV distribution line linking the four building blocks and extending an additional distance of approximately 0.75 mile from the southwest corner of the site, across Old Highway 80, and southwest to the Boulevard Substation. The point of interconnection (POI) contemplated by the interconnection documents is to either the existing Boulevard Substation owned by San Diego Gas and Electric (SDG&E) or to a new Boulevard East substation proposed by SDG&E to replace the existing substation and immediately to the east. Interconnection to the former, if implemented, would be temporary until the new substation is energized.

Project Construction

Construction of the Proposed Project would involve selective clearing and grubbing of vegetation, some grading, construction of CPV foundations, trenching for the electrical collection system and communication lines within each building block, installation of small concrete footing at each pair of inverters, construction of the small switch station, and installation of the short 12.5 kV dedicated gen-tie line from the switch station to the Boulevard Substation. The project area is relatively level and installation of each array would follow the existing grade with grading for minor leveling purposes as appropriate to enable primary and secondary road network completion, compliance with fire regulations, and CPV unit and electrical collection system installation.

Selective clearing and grubbing would be required for construction and access and as necessary to comply with fire code. Trenching for the electrical collection system and communication lines within each building block would entail a trench up to approximately three feet deep and one to two feet wide. The trenches would be filled with base material



above and below the conductors and communications lines to ensure adequate thermal conductivity and electrical insulating characteristics. Material from the foundation and trench excavations would be negligible and used for site leveling, foundation pads, inverter and transformer pads, and the switch station pad. The trackers would be assembled on-site. Recycling during construction would be in compliance with the County of San Diego Construction Demolition and Debris Management Plan requirements (in accordance with County Ordinance 68.508-68.518). The construction period would be between 6 and 12 months.

During construction, the Proposed Project would use water to suppress fugitive dust during grading and soil compaction. For site preparation and grading, it is assumed that approximately 0.20 acre-feet (65,000 gallons) of water per acre would be used during the first two months or 40 workdays of site construction. For fugitive dust control, it is estimated that approximately 1.75 acre-feet (570,239 gallons) of water would be used per week during six months of construction. Additional water would be used for hydrating the concrete used on-site; however, this would be imported. It is assumed that approximately 30 gallons of water would be used per cubic yard of concrete. As such, the Proposed Project would require approximately 12.84 acre-feet (4,183,052 gallons) of water during construction. Less water-intensive methods to implement dust suppression are under review including: (i) use of soil stabilizers, (ii) more tightly phasing construction activities, and/or (iii) compressing the entire construction schedule to reduce the time period over which dust suppression measures would be required.

The project area would be re-vegetated, except around project components and where primary and/or secondary service road access is required. Disturbed areas would be revegetated as follows: (i) areas around each tracker will be re-vegetated with native species, but still allowing for operations and maintenance access and fire suppression, (ii) areas not directly needed for construction or operations maintenance (that have been disturbed) will be re-vegetated with native species and allowed to grow to normal heights except where such growth is limited by fire protective measures or in creates shading that would compromise electricity generation, and (iii) no re-vegetation is proposed for secondary access roads that will be utilized for routine operations (including washing).

Project Operation and Maintenance

Operations of the Proposed Project would entail off-site monitoring through a supervisory control and data acquisition (SCADA) system utilizing on-site sensors or a comparable system that would maintain tracker orientation towards the sun. At night, the trackers would be positioned vertically to minimize dust collection. When winds are high, the trackers would be positioned in a horizontal mode. The PV trackers and communication/monitoring system onsite would require minimal usage of grid-provided electricity for operations use. Operations and maintenance personnel, as well as equipment storage would be located offsite, at a nearby central facility for all Soitec Solar operations.



Operations and maintenance of the CPV units would include in-place panel washing as frequently as up to approximately every 6 weeks to 2 months by mobile crews who would also be available for dispatch whenever on-site repairs or other maintenance are required. To the extent water supplies from existing on-site wells, or wells from the contiguous LanEast Solar Farm LLC project area are inadequate, water would be delivered in a tanker truck and transferred to panel washing trucks. Each panel-washing truck would carry water treatment equipment and truck-mounted panel washing booms. No more than 24 gallons of water would be required to wash each tracker, with a good possibility that much less water would be required. Panel washing would occur on-site for approximately 4 to 6 days per washing cycle.

As previously discussed, the project area is bounded by I-8 to the north, Old Highway 80 to the south, and McCain Valley Road 0.5 mile to the east. Primary access would be from McCain Valley Road and would be controlled by a security gate directly. The primary access road would be 20 feet wide, paved with decomposed granite, and would extend for approximately 0.5 mile. A secondary service road would be located on the southern boundary of the project area for personnel to access the switch station.

Project Location

The 54.66-acre project area lies within the unincorporated area of San Diego County just east of Boulevard, California, in the southeastern portion of the County (Figure 1). The project area is located at an elevation of approximately 3,300 feet above mean sea level and is within Sections 27 and 28 of Township 17S, Range 7E of the Live Oak Springs U.S. Geological Survey (USGS) Quadrangle (Figure 2). The project area is approximately 0.5 mile west of north/south-running McCain Valley Road, and is bordered by Old Highway 80 to the south and Interstate 8 (I-8) to the north(Figure 3). It consists of Assessor's Parcel Numbers 612-09-113 and 612-03-018.

Project Environmental Setting

Regional Context

The project area is located in a desert transition zone dominated by chaparral communities, subshrub communities, oak woodland, nonnative grassland, and disturbed wildflower fields. Abiotic features also present within the project area include rock outcrops, small, limited/restricted ephemeral wash features, and swales. The project area is characterized by gently sloping hillsides and shallow valleys, with rock outcrops and a few small hills scattered throughout the site. The project area is within the Boulevard Community Planning Area of the County's General Plan; the land use designation is Rural Lands with a permitted density of 1 dwelling unit per 80 acres (RL-80). Existing zoning is General Rural (S92), and the project area is currently used for grazing.

The project area is located within the County's draft East County Multiple Species Conservation Program (ECMSCP) Plan Area. More specifically, the project area falls within



a preliminarily delineated Focused Conservation Area (FCA) of the ECMSCP Plan Area (County of San Diego 2010). While the ECMSCP has not yet been finalized, location within a preliminary FCA suggests that the project area has some regional conservation value. Nevertheless, because this plan is not yet finalized, the Proposed Project is not subject to conditions of the ECMSCP.

Climate

The project area occurs within the Peninsular Range region of California at the western edge of the Sonoran Desert. The climate in this transitional region is semi-arid within the Mediterranean climate classification. The climatic pattern for the project area is characterized by moderate to strong fluctuations in daily temperatures, mild to hot dry summers, and mild, wet winters. Average maximum and minimum temperatures are 94 degrees Fahrenheit (°F) and 33°F, respectively. The warmest month for the region is typically July, and the coldest month is December. Precipitation in the area averages 15.5 inches annually, more than 90% of which falls from October through April (NOAA 2011a, 2011b; USCD 2011).

This area of the Peninsular Range region experiences a large number of days each year with generally clear skies and sunshine (averaging [or in excess of] 275 days per year). However, night and morning cloudiness is common during the spring and summer, and fog can occasionally develop during the winter. Seasonal and prevailing wind direction is westerly to northwesterly with an daily mean speed of 6 to 10 miles per hour. Frequently, the strongest winds within the vicinity of the project area occur during the night and morning hours due to the absence of the onshore ocean breeze (NOAA 2011a, 2011b).

The one active climatological station closest to the project area that monitors temperature and precipitation is the Campo Station (COOP ID 041424) which has been recording climatological data actively since July 1948 to the present (WRCC 2011a). ¹⁸ The mean annual temperature recorded at the Campo Station ranges from a minimum of 40.8°F to a maximum of 76.3°F. Mean annual rainfall measured at the Campo Station is 14.79 inches (WRCC 2011a).

A climatological station in Boulevard, California, did operate between 1969 and 1994 (Boulevard Station [COOP ID 041010]). The mean annual temperatures recorded at the Boulevard Station are not available. Mean annual rainfall measured at the Boulevard Station for approximately 25 years is 17.51 inches (WRCC 2011b).

¹⁸ The Campo Station is located approximately 9.25 miles southwest of the project area at 32.623331-116.472781 (WRCC 2011a), which is in Campo, California.



Jurisdictional Delineation Methodology

Presurvey Investigations

Prior to conducting the field delineation for potential jurisdictional waters of the U.S. and state (including wetlands), AECOM ecologists Brian Felten and Joshua Zinn reviewed historical land use of the project area, local and regional climactic data, and areas with topographical configurations and vegetative signatures occurring within the project area that may suggest the potential or presence of jurisdictional waters of the U.S. and state at the time of the field survey. Post-delineation data were also compared and confirmed. This information was evaluated by consulting the following available sources:

- 7.5-minute Live Oak Springs Quadrangle (USGS 1997)
- The web-based National Hydrography Dataset (USGS 2011)
- 2010 aerial maps of the project survey area (U.S. Department of Agriculture [USDA]
 National Agriculture Imagery Program) (USDA 2010)
- The web-based National Wetlands Inventory Wetlands Mapper (USFWS 2011)
- The web-based California Environmental Resources Evaluation System (CERES), California Wetlands Information System Wetland Databases and Inventories (CERES 2011)
- The web-based Information Center for the Environment (U.C. Davis 2011a)
- The web-based National List of Hydric Soils (NRCS 2011a)
- The web-based Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2011b)
- The web-based California Soil Resource Lab (U.C. Davis 2011b)
- The web-based Soil Survey Geographic Database (SSURGO) (NRCS 2011c)
- The web-based U.S. General Soil Map (STATSGO) (NRCS 2011d)
- The web-based California Watershed Portal (CalEPA 2011)
- The web-based California Watershed Network (CWN 2011)
- The web-based Office of Water Programs, Water Quality Planning Tool (CSUS 2011)
- The web-based Digital Watershed (USEPA 2011)
- The web-based Western Regional Climate Center (WRCC 2011c)
- The web-based National Weather Service Climate Office (NOAA 2011a)
- The web-based Project Clean Water San Diego (Project Clean Water 2011)



- The Soil Survey of San Diego County (Bowman 1973)
- The web-based San Diego County Geographic Information System (GIS) site (SANDAG 2011)
- The web-based San Diego County Flood Control District (SDFCD 2011)
- The web-based San Diego County Watershed Network (2011)
- The web-based San Diego County Water Authority (SDCWA 2011)

Formal Field Delineation

An AECOM ecologist initially conducted a general field reconnaissance of the project area (survey area) identifying areas (including the limits) supporting potential state and federal jurisdictional waters (including wetlands). After the initial field reconnaissance was completed, a formal delineation of jurisdictional waters (including wetlands) occurring within the survey area was conducted by two AECOM ecologists.

All acquired field data were obtained by recording the presence (including extents, types, and boundaries) of potential jurisdictional waters using a Trimble XH subfoot accuracy handheld Global Positioning System (GPS) unit. All acquired field data were submitted to AECOM San Diego's GIS specialists for post-field processing. Post-field analysis, using Trimble GPS Analyst (Version 2.1) GIS software to code, define, designate, and edit all acquired GPS field data representing potential jurisdictional waters occurring within the project area, was conducted in tandem by an AECOM GIS specialist and the ecologist who performed the fieldwork. The dates, AECOM personnel, and type of activity conducted for this formal field jurisdictional delineation are listed in Table 1.

Table 1
Survey Dates and Personnel Conducting the Formal Field Delineation at LanWest

Dates	Personnel	Activity		
November 8, 2011	Joshua Zinn	General field reconnaissance		
December 9, 2011	Brian Felten and Joshua Zinn	Field survey and formal delineation fieldwork		
December 12, 2011	Joshua Zinn	Groundtruthing and post-delineation fieldwork		

Delineation of Federal Waters

Jurisdictional waters of the U.S. include those waters listed in 33 CFR 328.3 (Definitions of Waters of the United States). All waters of the U.S. were delineated to their jurisdictional limits as defined by 33 CFR 328.4 (Limits of Jurisdiction). It was determined through pre-field surveys (remote analysis) and the general field reconnaissance that the project area had the



potential for the presence of, at a minimum, two types of federally regulated waters (wetlands¹⁹ and "other waters"²⁰), warranting field assessments composed of the following:

- 1. Formal delineations for waters of the U.S. in the form of wetlands based on the three-parameter method.²¹ The three-parameter method for identifying and delineating wetlands is outlined in and in accordance with the latest federal guidance, methodologies, and procedures:
 - a. Corps of Engineers Wetlands Delineation (1987 Manual) (Environmental Laboratory 1987)
 - b. the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (2008 Supplement) (Environmental Laboratory $2008)^{22}$
 - c. USACE Wetland Plants of Specialized Habitats in the Arid West (Lichvar and Dixon 2007)
- 2. Formal delineations for waters of the U.S. in the form of other nonwetland waters based on field indicators to define and identify the jurisdictional lateral extent of the ordinary high water mark (OHWM), as defined by 33 CFR 238.3(e), federal guidance, methodologies, and procedures, including the following:
 - a. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (Lichvar and McColley 2008)²³
 - b. Review and Synopsis of Natural and Human Controls on Fluvial Channel Processes in the Arid West Channels (Lichvar and Field 2007)
 - c. Distribution of Ordinary High Water Mark (OHWM) Indicators and their Reliability in Identifying the Limits of "Waters Of The United States" in Arid Southwestern Channels (Lichvar et al. 2006)
 - d. All applicable USACE Regulatory Guidance Letters (RGLs) for other waters²⁴

This jurisdictional delineation applied the two prescribed field methodologies in the routine delineating of waters of the U.S. (including wetlands), as described below.

²¹ The three-parameter method requires the simultaneous presence (co-occurrence) of wetland hydrology, hydric soil, and hydrophytic vegetation for an area to be classified as a wetland (Environmental laboratory 1987).

¹⁹ The federal definition of wetlands outlined in 33 CFR 328.3(b), 40 CFR 230.3(t), the 1987 Manual, and the 2008 Supplement. The federal definition of Other Waters outlined in 33 CFR 328.3(a)(3)(i–iii) and 328.3(e).

²² It should be noted that the 1987 Manual and 2008 Regional Supplement are guidance documents for delineating waters in the form of wetlands only. The portion of the delineated project area containing aquatic features used 2008 Supplement Data Forms to document the presence/absence of wetlands, but not the

presence of *jurisdictional waters* possessing an ordinary high water mark or "other waters" of the U.S. ²³ Datasheets from this field delineation manual were used as guidance documents for this delineation and are not included in this JDLR.

²⁴ RGL 88-06; RGL 05-05.



Methodology One: Formal Delineations for Waters of the U.S. in the Form of Wetlands

The routine determination method requires an examination for the presence of wetland indicators for hydrophytic vegetation, hydric soils, and wetland hydrology. With the exception of some atypical situations, USACE guidelines for delineating wetlands (e.g., 1987 Manual and 2008 Supplement) require co-occurrence of positive wetland indicators for each parameter (e.g., hydrophytic vegetation, wetland hydrology, and hydric soil).

The formal jurisdictional delineation for federally defined wetlands was conducted in accordance with Part IV (Methods), Section D (Routine Determinations), Subsection 1 (Onsite Inspection Necessary) of the 1987 Manual's "Routine Determinations for Areas Greater Than Five Acres in Size." The 1987 Manual recommends that a baseline be established that parallels the watercourse(s) through the survey area and that the maximum distance between transects (intervals) for linear delineations does not exceed 0.5 mile.

A positive wetland determination was made for those observation points that exhibited positive wetland field indicators for each of the three parameters: hydrophytic vegetation, wetland hydrology, and hydric soils. A positive determination for potential nonwetland jurisdictional waters of the U.S. was made for areas that did not meet all three parameters for federally defined wetland but met the definitions of other waters of the U.S. (see Methodology Two, below).

Although the 2008 Supplement also uses the three-criteria method outlined in the 1987 Manual, it identifies specific sections of the 1987 Manual that are replaced by 2008 Supplement guidance (see Table 1 of the 2008 Supplement) that must be used within applicable land resource regions as outlined in the 2008 Supplement (the project area is within Region C [Mediterranean California]). Therefore, the 2008 Supplement takes precedence over the 1987 Manual for applications in the Arid West region, and states the following in Chapter 4:

The Arid West is characterized by extended dry seasons in most years and by extreme temporal and spatial variability in rainfall, even in "normal" years. Many wetlands in the region are dry for much of the year and, at those times, may lack hydrology indicators entirely. Therefore, *lack of an indicator is not evidence for the absence of wetland hydrology*. [Italics in the original.]

In Chapter 5:

In general, wetland determinations on difficult or problematic sites must be based on the best information available to the field inspector, interpreted in light of his or her personal experience and knowledge of the ecology of wetlands in the region. [Italics in the original.]

²⁵ 33 CFR 328.3(a–f) (51 Federal Register [FR] 41250, November 13, 1986, as amended at 58 FR 45036, August 25, 1993).



In accordance with the 1987 Manual and the 2008 Regional Supplement, the following wetland delineation criteria, primary field indicators, and best professional judgment were used for the collection of data pertinent to assessment of the mandatory technical criteria. Field data were recorded in the 2008 Supplement Wetland Determination Data Forms – Arid West Region (Version 2.0), which is appropriate for application of both the 1987 Manual and the 2008 Supplement "routine" method. Copies of the Arid West region data forms are included in Attachment B.26

Where feasible, the baseline for establishing the transect (and field data point) locations was situated in nonjurisdictional (i.e., upland and/or nonwetland and/or nonriparian) habitat so that the initial observation points of the transect were likely outside of wetland boundaries or on either side of the potential jurisdictional waters (in the form of wetland), and extended across the jurisdictional feature to nonjurisdictional (upland) habitat on the opposite side. This baseline placement ensured that the outer observation point for each transect was also located in representative nonwetland (or upland) habitat, allowing for accurate demarcation of the limits of potentially jurisdictional areas. Additionally, a field data point would be used to confirm the presence or absence of a federally defined wetland within a feature that presented the potential to support the simultaneous presence of all three wetland parameters (as defined in the 1987 Manual and 2008 Supplement) occurring at such a confirmation point.

It was determined that one transect interval for riparian vegetation occupying an unnamed ephemeral dry wash (located within the southwest portion of the project area) would be adequate for wetland field delineation data collection. Obvious upland areas were not mapped as part of this analysis, as they did not represent waters, wetland, and/or riparian communities that warranted a formal jurisdictional delineation. Therefore, for this delineation, the one transect, providing a cumulative total of one field data point, was completed throughout the project area for the field delineation. This field data point also served as a confirmation point. Additional soil pits were dug in close proximity to this upland confirmation point to accurately confirm the field findings (see results, below).²⁷

It should be noted that riverine features occurring within Arid West region may support riverine-dependent (or wash-dependent) vegetation. This dependent vegetation associated with these features may not necessarily be hydrophytic and, thus, not meet the federal criteria or definition of wetland. The 2008 Supplement recognizes these "problem" situations concerning Arid West region riparian areas, and states the following in Chapter 5:

Riparian ecosystems are highly variable across the Arid West, and can contain both wetland and non-wetland components. Riparian corridors can be lined with

 26 One data form was used for this delineation to confirm the absence of federally defined wetlands as outlined in 33 CFR 328.3(b), 40 CFR 230.3(t), the 1987 Manual, and the 2008 Supplement.

²⁷ Based on Section D, Subsection 1 of the 1987 Manual's "Routine Determinations for Areas Greater Than Five Acres in Size," this single confirmation point will suffice as a baseline for the delineated features which, while can potentially supporting, do not meet the federal definition of wetland occurring within the project area.



hydrophytic vegetation, upland vegetation, unvegetated areas, or a mosaic of these types ...

... In addition, many riparian areas contain remnant stands of tree species that may have germinated during unusually high water events or under wetter conditions than currently exist at the site. These areas may have a high frequency of phreatophytic species that, when mature, are able to exploit groundwater that is too deep to support wetlands. In such situations, there may be a hydrophytic overstory and a nonhydrophytic understory. If the soils are recently deposited lacking hydric soil features and/or wetland hydrology is problematic, more emphasis should be placed on the understory, which may be more indicative of current wetland or non-wetland conditions.

Hydrophytic Vegetation

In addition to the jurisdictional delineation described in this JDLR, AECOM conducted vegetation communities surveys and mapping within the project area between April 19 and November 26, 2011. Rare and sensitive plant surveys were conducted within the project area in the spring between April 19 and June 14, 2011; fall surveys were conducted from October 6 to November 26, 2011 (AECOM 2012) (Figure 4).

Vegetation mapping and rare plant surveys were confirmed in GIS in December 2011, and refined to include results of wetland field delineation and vegetation mapping surveys conducted during spring and fall of 2011. The minimum mapping unit used for this delineation was 0.01 acre for hydrophytic vegetation communities.

Only those plant species that form hydrophytic plant communities within the project area that are listed within the *National List of Plant Species that Occur in Wetlands: California (Region 0)* (Reed 1988) or have the potential for being considered as hydrophytic are addressed herein. This JDLR uses the Holland Code Classification System (Holland 1986) as modified by Oberbauer (Oberbauer 1996, revised 2005), and the Draft Vegetation Communities of San Diego County cross-referenced with *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 2008) to describe riparian and wetland (e.g., hydrophytic) vegetation communities occurring with the project area. ²⁸ Where vegetation contains a mixture of component and indicator species from two or more communities outlined in Holland (1986) and Sawyer and Keeler-Wolf (2008), the indicator species that appears with the greatest vegetation coverage (absolute dominance based on percent cover) is used to identify the vegetation community (County of San Diego 2010).

An area was determined to support hydrophytic vegetation if more than 50% of the dominant species was listed as Obligate Wetland (OBL), Facultative Wetland (FACW), or Facultative (FAC) species on the U.S. Fish and Wildlife Service (USFWS) *National List of Plant Species*

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²⁸ Only those plant species that are listed within the *National List of Plant Species that Occur in Wetlands: California (Region 0)* (Reed 1988) or have the potential for being considered as hydrophytic are considered as hydrophytic plant species (e.g., wetland plants).



that Occur in Wetlands: California (Region 0) (Reed 1988). ²⁹ Vegetation was assessed using the "50/20 Rule" to determine dominant species. ³⁰ By definition, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50% of the total dominance measure (e.g., basal area or areal coverage) for the stratum, plus any additional species that individually comprise 20% or more of the total dominance measure for the stratum (Tiner 1999). All observation points were also surveyed for the presence of surface wetland hydrological field indicators such as inundation, saturation, water marks, drift lines, drainage patterns, and sediment deposits occurring within a hydrophytic vegetation community.

Hydric Soil

AECOM consulted and field verified the Soil Survey of San Diego County, California (Bowman 1973) and the USDA NRCS Soil Survey Geographic Database (SSURGO) and State Soil Geographic Database (STATSGO) digital soil survey metadata provided by the California Soil Resource Lab (U.C. Davis 2011a) within the project survey area. Guidance for using soil surveys in the Arid West region is found in the 2008 Arid West Region (Version 2.0) Supplement: Chapter 3 (Hydric Soil Indicators), page 34, Use of existing soil data; soil surveys, which emphasizes groundtruthing to document the soil survey and field conditions.³¹

All soil pits (field data points for soil inspection and observation) were dug to a depth of 20 inches below natural grade or to the point of obstruction (e.g., compaction or rock barriers) if a 20-inch-deep soil pit was not possible. Soil pits were consciously located in obvious (or potential) wetland and nonwetland areas to determine the wetland/nonwetland boundary and the presence or absence of hydric soil. In most instances, additional soil pits were dug between observation points to accurately determine the potential wetland/nonwetland boundary. Subsurface soil taken from soil pits was analyzed visually for redoximorphic features using *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils* (USDA 2006). A Munsell Color System was consulted to document and record soil color at the time of the subsurface investigations.

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²⁹ The 2008 Supplement does not use ± facultative values.

It should be noted that the USDA Soil Survey of the San Diego Area, California (Bowman 1973), may not reflect current field conditions. It is possible that some soils investigated for that study have been transformed through human intervention since the 1973 soil survey was published. Soils that underlie the project area may have been transformed significantly or extensively as a result of human activity (e.g., transportation development encroachment and sedimentation). Therefore, the formal delineation fieldwork included examining soils in the survey area. When comparing these findings to the 1973 Soil Survey for San Diego County, field findings took precedent over the 1973 survey findings.

The 50/20 Rule is a dominance ratio. When using the 50/20 Rule, greater than 50% of the plants must be facultative, facultative wet, or obligate wet species. In addition, the cumulative total of all dominant plants must be equal to or greater than 50% of the areal coverage of the plot, and any plant species that equals or exceeds 20% of the total percentage areal coverage of the plot is also considered a dominant plant. If no plant species equals or exceeds 20% of the cumulative total areal coverage of the plot, then the dominant plants are the plants that, when ranked in decreasing order of abundance and summed, immediately exceed 50% of the plot's areal coverage when added together (Federal Interagency Committee for Wetland Delineation 1989).



Only those soil(s) and soil land type(s)³² within the project area that are listed as hydric by the National Resource Conservation Service (NRCS 2011a), have diagnostic hydric properties and/or features, have hydric inclusions, meet the criteria and/or definition of a hydric soil, or have the potential to be hydric by definition are addressed herein.

The National Technical Committee for Hydric Soils (NTCHS) defines a hydric soil as "a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (NRCS 2011e). The NTCHS definition identifies general soil properties that are associated with wetness. Additionally, specific criteria that identify those estimated soil properties unique to hydric soils have been established by NTCHS (NTCHS 1995). Therefore, hydric soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

Hydric soil definitions and NTCHS-approved hydric soil criteria are used to generate hydric soil lists (Environmental Laboratory 2008). The National Hydric Soils List (NRCS 2011a), primarily used as an off-site assessment tool during presurvey investigations, contains a listing of soils that have a probability of being hydric. Hydric soil indicators are primarily morphological indicators used for field identification of hydric soils and/or soils meeting the hydric soil definition. These hydric soil indicators are a subset of the NTCHS Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 6.0 (USDA 2006). Hydric soil indicators are not intended to replace or relieve the requirements contained in the definition of a hydric soil. Therefore, a soil that meets the definition and/or criteria of hydric can be considered hydric whether or not it exhibits diagnostic field indicators (e.g., the presence of mottles or gleying [redoximorphic features]) at the point of subsurface investigation. If hydric soil indicators are absent and indicators of understory and/or herbaceous hydrophytic vegetation and wetland hydrology are simultaneously present within an appropriate landscape setting, then, by definition, the presence of a problematic soil would be justified as meeting the criteria to be considered a hydric soil (Environmental Laboratory 2008).³⁴

Where warranted, a field diagnostic test for determining the presence or absence of iron reduction and identifying aquic conditions using α , α' Dipyridyl was also applied in selected soil examination areas. The soil test pits were also evaluated for the presence of subsurface wetland hydrology indicators such as soil saturation, oxidized root channels, and other hydric soil indicators such as fluvial depositional material.

³⁴ Also published in FR 60 10349, February 24, 1995.

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³² In most areas surveyed, there are places where the soil material is transported depositional material, or so altered, rocky, shallow, dynamic, or so severely eroded that it cannot be classified by soil series. While still technically considered a soil, these soil materials are called soil land types (not soil series), and are given descriptive names outside of the system of soil taxonomy. For example, a soil land type recognizes and names the soil and landscape properties that are not used as criteria in soil taxonomy (e.g., escarpments, inundation, deposition, gullying, and erosion). Therefore, a soil land type is a functional unit that may be designed and designated according to the purpose of the existing soil survey (Pedosphere 2011).

³³ Also published in FR 59 35680–35681, July 13, 1994.



Wetland Hydrology

Wetland hydrology is essentially a result of watershed-driven processes of hydrological inputs from precipitation that provide sufficient groundwater and/or surface flows to support hydrophytic plants. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively (Environmental Laboratory 1987). The formation, persistence, size, and function of wetlands are controlled by hydrologic processes within the watershed. Water sources from continual inputs (e.g., immediate proximity to a hydrological feature such as a lake, a river [including small intermittent stream features], the ocean, and/or a wet climate) and the ability to retain or slow down water flow are necessary for the creation and existence of wetlands. Distribution and differences in wetland type, vegetative composition, and soil type are caused primarily by geology, topography, and climate. Hydrologic processes occurring in wetlands are the same processes that occur in uplands, and are collectively referred to as the hydrologic cycle. Major components of the hydrologic cycle are precipitation, surface-water retention, surfacewater flow, groundwater flow, and evapotranspiration. Wetlands and uplands continually receive or lose water through exchange with the atmosphere, streams, and groundwater. Wetland hydrology is a result of a favorable topographic and geologic setting and an adequate or persistent supply of water (USGS 1996).

USACE has set a quantitative wetland hydrology threshold as it applies to all types of nontidal wetlands (Environmental Laboratory 1987). Specifically, an area has wetland hydrology if it is inundated or saturated to the surface continuously for at least 5% of the growing season in most years (50% probability of recurrence). 36,37 Additionally, the hydrology requirements for a wetland can be defined as follows: On average, an area must be inundated or the soils saturated to the surface in more than half the years (1 out of 2.5 out of 10, or 50 out of 100) for more than 5% of the growing season to conclude with reasonable certainty that the area has wetland hydrology. The project area is located in Region 0 where the growing season is year-round. By using this protocol, the hydrology of non-tidal jurisdictional wetlands can often be empirically identified using a minimum of 10 years of climactic data (to represent normal conditions).

Specific wetland hydrology field indicators, as outlined by federal guidance documents (e.g., the 1987 Manual and 2008 Supplement), occurring within the project area were surveyed for wetland hydrology factors such as stratigraphy (and groundwater levels), topography, soil permeability, and plant cover, in concert with available climactic data. All wetland hydrology

³⁵ Criteria, limits, and thresholds for wetland hydrology are defined for nontidal wetlands in the 1987 Manual. ³⁶ The growing season in Southern California is estimated to be 365 days a year; therefore, an area has wetland hydrology if it is inundated or saturated to the surface continuously for 18 days.

The 2008 Supplement provides no quantitative information for the start of a "growing season." The 1987 Manual defines "growing season" as the portion of the year when soil temperature (measured 20 inches below the surface) is above biological zero (5°C or 41°F). This period "can be approximated by the number of frostfree days." Estimated starting and ending dates for the growing season are based on 28°F air temperature thresholds at a frequency of 5 years in 10. The end of the growing season is still based on the 28°F (-2.2°C) air temperature threshold, as reported in Climate Analysis for Wetlands tables.



indicators (both primary and secondary [per the 2008 Supplement]) were recorded when observed where there was adequate potential for surface water inundation, saturation, and retention occurring in exposed soil (e.g., unlined channels and/or swales or low topographic areas) per the guidance outlined within the 1987 Manual and 2008 Supplement. Areas that have hydrophytic vegetation and hydric soils generally also have wetland hydrology unless the hydrologic regime has changed due to natural events or human activities (NRC 1995).

<u>Methodology Two: Formal Delineations for Potential Jurisdictional Waters of the U.S. in the</u> Form of Other Waters

OHWM indicators were used to delineate the lateral jurisdictional extent of potential nonwetland waters of the U.S. Lateral jurisdictional limits were established for all drainage features/channels occurring within the project area in conjunction with field verification for a determination of the OHWM, which provides an acceptable estimate for the lateral jurisdictional limits. The OHWM of the drainage features/channels was identified on the basis of one (or more) of the following:

- Water marks within their respective channel banks established by the fluctuations of water and indicated by physical characteristics such as clear, natural lines impressed on the banks:
- Scour and shelving, local deposition, distinct and indistinct terraces, and changes in the character of soil;
- The presence of developed longitudinal bars within channel margins;
- Type, abundance, and relative age of vegetation and/or destruction of terrestrial vegetation, and the presence and absence of litter and debris within the ephemeral channels:
- Ephemeral channel configuration, estimated streamflow behavior, and other subtle geomorphic evidence indicative of regular flow levels;
- Consideration of precipitation patterns and lack of consistent flow;
- Geomorphic OHWM indicators (e.g., surface relief, cobblebars, benches, crested ripples, particle size distribution, mudcracks, gravel sheets, desert pavement, and dunes); and/or
- Pattern and location of relictual channels and discontinuous drainage features.

The lateral limits of jurisdiction specified by a technically defensible method such as the portion of the drainage features/channels supporting an OHWM would indicate a sufficiency to carry the mean annual flow, as determined through the extrapolation of field indicators and rainfall data. Lateral jurisdictional limits were established for the two drainage features/channels occurring within the project area in conjunction with field verification for a determination of the OHWM, which provides an acceptable estimate for the lateral jurisdictional limits (and other potential waters of the U.S. existing within this limit).



The limits of waters of the U.S. in non-tidal waters is defined in 33 CFR Part 328.4 (c)(1–3) as follows:

- 1. In the absence of adjacent wetlands, the jurisdiction extends to the OHWM; or
- 2. When adjacent wetlands are present, the jurisdiction extends beyond the OHWM to the limit of the adjacent wetlands; or
- 3. When the water of the U.S. consists only of wetlands, the jurisdiction extends to the limit of the wetland.

The criteria for frequency and duration of the OHWM have not been defined under the CWA or under any guidance from USACE for field delineators; therefore, identifiable field indicators and characteristics of OHWM, best professional judgment, interpretation of 33 CFR 328.3(e), and appropriate RGLs were applied to determine the potential jurisdictional extent of OHWM within the project survey area. Fluvial channels occurring within the Arid West region of the U.S. have recently been described as "ordinary" when they typically correspond to a 5- to 8-year event, and typically have an active floodplain with sparse vegetation cover, shifts in soil texture, and occasional alignment with distinctive bed and bank features (USACE 2007a). However, modeling has shown that slightly larger events (5-to 10-year recurrence) may be necessary to engage the active floodplain in arid systems (USACE 2006).

OHWM and the limits of jurisdiction are discussed in the preamble to the USACE November 13, 1986, Final Rule, Regulatory Programs of the Corps of Engineers, Federal Register Volume 51, No. 219, page 41217, which discusses the proper interpretation of 33 CFR Part 328.4 (c)(1) as follows:

Section 328.4: *Limits of Jurisdiction*. Section 328.4 (c)(1) defines the lateral limit of jurisdiction in nontidal waters as the OHWM provided that the jurisdiction is not extended by the presence of wetlands. Therefore, it should be concluded that in the absence of wetlands, the upstream limit of [USACE] jurisdiction also stops when the OHWM is no longer perceptible.

In addition, RGL 88-06, issued June 27, 1988, discussed the OHWM as follows:

The OHWM is the physical evidence (shelving, debris lines, etc.) established by normal fluctuations of water level. For rivers and streams, the OHWM is meant to mark the within-channel high flows, not the average annual flood elevation that generally extends beyond the channel.³⁸

RGL 05-05, issued December 7, 2005, discusses the field practice and practicability of identifying, determining, and applying the OHWM for nontidal waters under Section 404 of

³⁸ Following RGL 05-06 (Expired RGLs): Unless superseded by specific provisions of subsequently issued regulations or RGLs, the guidance provided in RGLs generally remains valid after the expiration date, as discussed in the Federal Register notice on RGLs of March 22, 1999, FR Vol. 64, No. 54, page 13783.



the CWA (and under Sections 9 and 10 of the Rivers and Harbors Act of 1899), and states the following:

Where the physical characteristics are inconclusive, misleading, unreliable, or otherwise not evident, districts may determine OHWM by using other appropriate means that consider the characteristics of the surrounding areas, provided those other means are reliable. ³⁹ Such other reliable methods that may be indicative of the OHWM include, but are not limited to, lake and stream gage data, elevation data, spillway height, flood predictions, historic records of water flow, and statistical evidence.

Many stream channels in arid regions are dry for much of the year and, at times, may lack hydrology indicators entirely or exhibit relic OHWM features from exceptional hydrological events. RGL 05-05 further states the following:

When making OHWM determinations, districts should be careful to look at characteristics associated with ordinary high water events, which occur on a regular or frequent basis. Evidence resulting from extraordinary events, including major flooding and storm surges, is not indicative of OHWM. For instance, a litter or wrack line resulting from a 200-year flood event would, in most cases, not be considered evidence of an OHWM.

It should be noted that swales and swale complexes in the survey area, while unvegetated, occur within the larger chaparral, subshrub, oak woodland, and nonnative grassland habitats. Swales are generally poorly defined surface aquatic features characterized by low-volume, infrequent, or short-duration flow, and are usually shallow topographical features in the landscape that *may* convey water across upland areas during and following uncommon large storm events. Swales are generally not considered jurisdictional waters of the U.S. because, among other things, they lack an identifiable OHWM, are not tributaries to any receiving water, and do not support interstate commerce.⁴⁰

Field Survey for Waters of the State

In addition to prefield and reconnaissance surveys, potential jurisdictional waters of the state were assessed and delineated within the project survey area pursuant to CFGC Section 1600 *et seq.* (and other relevant guidance and regulatory applicability [see above]). In addition to formal field delineation efforts, aerial signatures of potential aquatic features were identified and noted on recent aerial photos (USDA 2010), and were subsequently groundtruthed for their occurrence and presence within the survey area. Boundaries for

³⁹ In some cases, the physical characteristics may be misleading and would not be reliable for determining the OHWM. For example, water levels or flows may be manipulated by human intervention for power generation or water supply. For such cases, districts should consider using other appropriate means to determine the OHWM (RGL 05-05).

40 33 CFR 328.3. Even when not considered a jurisdictional water of the U.S., swales may still contribute to a surface hydrologic connection between upland and aquatic features. However, such hydrological connections are dependent on large, uncommon storm events.



unvegetated ephemeral dry wash and swale features (e.g., waters of the state) were determined (and recorded) by the presence of shelving and/or scour resulting in an established bank, bed, or channel of an ephemeral wash feature and its associated swales and swale complexes (where applicable). In specific areas within the small underdeveloped ephemeral wash channel, where evidence of shelving or scour was absent, subsurface investigations were undertaken to identify established channel banks. Although some portions of the ephemeral washes presented shelving with smooth-toe transitions, these features are composed of friable sand and are evidence of recent sand deposition (both from fluvial- and aeolian-related events) covering the bank features.

Based on the CFGC Section 1600 et seq. definition, relevant state regulations (see above), CDFG regulatory practice, and past CDFG field guidance, swale features (individual and complexes) occurring within the project area were also noted and recorded as potential jurisdictional waters of the state.41

In conjunction with adopting a wetlands policy on March 9, 1987, the California Fish and Game Commission assigned CDFG the task of recommending a wetlands definition. CDFG determined the USFWS wetland definition and classification system, which is based on the Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979) to be the most biologically valid. Therefore, for jurisdictional waters of the state under the regulatory administration of the CDFG (e.g., CFGC Section 1600 et seq. [waters associated with a stream, a lake, and potentially a swale feature) CDFG only requires the presence of one parameter (e.g., wetland hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a jurisdictional water of the state in the form of a wetland. The Cowardin method (Cowardin et al. 1979) requires care to avoid falsely positive conclusions (e.g., concluding that an area with no transitional relation to the aquatic system is a wetland based on presence of vegetation equally apt to be found in wetland or nonwetland circumstances).

Therefore, jurisdictional wetland delineations for waters of the state (in the form of associated riparian wetland) occurring within the survey area were conducted based on the one-parameter⁴² method outlined in CDFG/USFWS guidance documents and classification manual(s) to define presence and state jurisdictional extent. 43,44

RWQCB jurisdiction was delineated based upon the presence of aquatic features that may present 'beneficial use' as outlined in the Water Quality Control Plan Colorado River Basin

⁴¹ Swales are microtopographic features that convey surface water in low volume and short duration (hours to days [usually in sheetflow]) and are commonly associated with riverine features (Hauer and Lamberti 2007). ⁴² For federal jurisdictional waters, a determination for the presence of wetland is based on the presence of three parameters occurring simultaneously at the area of investigation and study: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology (Environmental Laboratory 1987). Therefore, for state-defined wetlands, only one of these three wetland criteria is required to be present for the state to consider an aquatic feature a wetland.

⁴³ It should be noted that CDFG does not currently have a delineation manual for jurisdictional waters of the state (including wetlands).

⁴⁴ Although aquatic features can be delineated and defined as an aquatic feature under the Cowardin Classification System, they are not necessarily jurisdictional waters of the U.S. or state.



Plan (RWQCB 1993). Therefore, if it was determined that any type of aquatic and/or aquatic-related features occurring within the project area would present "beneficial use," the aquatic feature would be delineated (this would include swale features)

Field Survey for County Environmentally Sensitive Lands in the Form of Aquatic Features

Surveys for potential County Environmentally Sensitive Lands in the Form of Aquatic Features were assessed and delineated within the project survey area pursuant to Section 86.602 of the RPO and in accordance with the federal and state delineation methodologies addressed above.

Results

The findings for each potential wetland parameter(s) were recorded for the field data point taken within the project area (Table 2). Specific findings for hydrophytic vegetation, hydric soils, and wetland hydrology are discussed in detail below.

Table 2 Survey Results for Parameters of Potential Jurisdictional Waters of the U.S.^a, State. b and County in the Form of Wetland Occurring within LanWest

Sample Point	Vegetation Community	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Potential Federal Water	Potential State Water ^{f,g}	Potential County Environmentally Sensitive Land
T1.1	Disturbed Southern Willow Scrub	yes/no ^d	no ^e	no	no	yes/no	yes

^a The federal definition of wetlands outlined in 33 CFR 328.3(b), 40 CFR 230.3(t), the 1987 Manual, and the 2008

Supplement.

b As defined by CFGC Section 1600 *et seq.* and Title 14 CCR 1.72; CCR 1500 *et seq.*; and Public Resource Code 21000 et seq.

^c As defined by Section 86.602 of the County RPO.

^d Although there are hydrophytic plant species occurring within the project area outside this point of investigation, they are intermixed with upland species. Additionally, these hydrophytic species are scattered throughout the project area and do not meet the definition of over 50% dominance.

e Only where this soil occurs within the unvegetated ephemeral dry wash upstream (outside this point of investigation [which is not populated by hydrophytic vegetation]).

f Although this disturbed riparian feature occurs within a swale (or roadside ditch) and not as a direct component of an established channel, this feature likely meets the CDFG definition of state waters in the form of a riparian extent of the upstream portion of the defined channel.

⁹ Although this is a disturbed riparian feature and it is directly associated with a swale, it may likely meet the RWQCB definition of a state water (as outlined in CWC Section 13000 et seq. and the Basin Plan [RWQCB 19931).



Hydrophytic Vegetation

One hydrophytic vegetation community occurring within the project area, composed of disturbed southern willow scrub, was observed existing within a swale. This vegetation community was recorded and mapped during the vegetation surveys⁴⁵ (see above)(Figure 4). This hydrophytic vegetation community and its acreage occurring within the survey area are summarized in Table 3. Hydrophytic plant species associated with this vegetation community occurring within the survey area are listed in Table 4. This wetland floristic association (hydrophytic vegetation community) is discussed below and corresponds to the following:

1. Southern willow scrub (Holland Code 63320 [Holland 1986]) or the *Salix Laevigata* Woodland Alliance (Red Willow Thickets) (Sawyer and Keeler-Wolf 2008) (Figure 4)

Table 3
Hydrophytic Vegetation Communities Occurring within the Survey Area^{a,b}

Vegetation Community (Holland 1986)	Vegetation Community (Sawyer and Keeler-Wolf 2008)	Acreage within the Survey Area
Southern Willow Scrub (disturbed/degraded)	Salix Laevigata Woodland Alliance (Red Willow Thickets (disturbed/degraded)	0.10
Total		0.10

^a In acres. Acreage of the vegetation communities occurring within the survey area was determined by using ArcGIS. All acreages are rounded to the nearest hundredth.

b Includes disturbed wetland vegetation community.

Table 4
Hydrophytic Plant Species Observed within the Survey Area^a

Scientific Name	Common Name	Region 0 (California) Indicator Status ^a		
Tree Species Growth Habit				
Salix laevigata ^b	red willow	Facultative Wetland (FACW)		
Salix lasiolepis	arroyo willow	FACW		
Shrub Species Growth Habit				
Atriplex lentiformis	big saltbush			
Baccharis salicifolia	mulefat			
Baccharis sergiloides	desert baccharis			
Herbaceous Species Growth Habit ^c				
Ambrosia psilostachya	western ragweed	Facultative (FAC)		
Distichlis spicata	salt grass	FACW		
Euthamia occidentalis	western goldenrod	Obligate (OBL)		
Heliotropium curassavicum	salt heliotrope	OBL		
Hordeum marinum ssp. gussoneanum ^d	Mediterranean barley	FAC		

45 The area of potential jurisdictional waters in the form of southern willow scrub may differ from the mapped vegetation community based upon differing criteria in vegetation mapping and formal field delineations.

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Scientific Name	Common Name	Region 0 (California) Indicator Status ^a
Juncus mexicanus	Mexican rush	FACW
Juncus xiphioides	iris-leaf rush	FACW
Mimulus cardinalis	scarlet monkey flower	OBL
Mimulus guttatus	seep monkey flower	OBL
Muhlenbergia rigens	muhley grass	FACW
Plantago major	common plantain	FACW
Polypogon monspeliensis	annual beard grass	FACW
Rumex salicifolius var. denticulatus	toothed willow dock	FACW
Veronica Anagallis-aquatica	Mexican purslane	OBL

- ^a Based on the National List of Vascular Plant Species that Occur in Wetlands (Reed 1988) except where noted. OBL wetland species occur almost always (estimated probability >99%) under natural conditions in wetlands; FACW species usually occur in wetlands (estimated probability 67 to 99%) but occasionally are found in nonwetlands; FAC species are equally likely to occur in wetlands or nonwetlands (estimated probability 34 to 66%); Facultative Upland (FACU) species usually occur in nonwetlands (estimated probability 67 to 99%) but occasionally are found in wetlands (estimated probability 1 to 33%) under natural conditions in the region specified. Therefore, FACU is not considered a hydrophytic plant species for purposes of this delineation. If a species does not occur in wetlands in any region, it is not on the National List of Vascular Plant Species that Occur in Wetlands (Reed 1988). The 2008 Supplement (Environmental Laboratory 2008) does not use ± facultative values.
- ^b Salix laevigata is not on Reed 1988 but appears on the U.S. Fish and Wildlife Service 1996 National List of Vascular Plant Species that Occur in Wetlands (USFWS 1996). The 1996 National List is a draft revision of the National List of Plant Species That Occur in Wetlands: 1988 National Summary. However, for this delineation, based on the occurrence of this plant species within the project area, a minimum wetland indicator of FAC will be applied.
- Not all hydrophytic plants listed were observed at the point of investigation. Hydrophytic plants listed above and observed throughout the project area, with the exception of the swale feature, tended to be few, scattered, and incidental and did not reach dominant or coverage levels to warrant a formal delineation where they occurred.
- d Hordeum marinum ssp. gussoneanum is not listed in Reed (1988). However, it is a synonym for Hordeum hystrix, which is listed in Reed (1988) as FAC.

Southern Willow Scrub (Holland Code 63320)

Southern willow scrub is a dense, broad-leaved, winter-deciduous riparian thicket dominated by several species of willows in association with mulefat. Scattered individuals of cottonwood and California sycamore may exist as canopy emergents. This is an early seral community that requires periodic flooding for its maintenance (Oberbauer et al. 2008). In the absence of periodic flooding, this community would develop into a riparian woodland or forest.

Based on vegetation mapping and the formal field delineation efforts within the project area, southern willow scrub is encountered within a swale that parallels Old Highway 80 and is located within the southeast portion of the project area. This swale feature also functions as a roadside ditch. Within the project area where the southern willow scrub occurs, the swale is essentially a terminus of a more developed unvegetated ephemeral wash feature occurring upstream. Dominant overstory species are composed of scattered red willow and arroyo willow. Dominant understory species are overwhelmingly composed of nonhydrophytic shrubs such as coyote brush (*Baccharis pilularis*) and big sagebrush



(Artemisia tridentata ssp. tridentate), and nonhydrophytic herbaceous species such as tarragon (Artemisia dracunculus), Russian thistle (Salsola tragus), shortpod mustard (Hirshfeldia incana), bedstraw (Galium aparine), and red-stem filaree (Erodium cicutarium). Nonnative grasses such as Brome sp. also populate the southern willow scrub understory.

<u>Soil</u>

No soil series (including its respective phase) or soil land type⁴⁶ listed in the National List of Hydric Soils (NRCS 2011f) occur within the project area. During the field investigation and delineation efforts, it was observed that the soils occurring within the project area generally conformed to the *San Diego County Soil Survey* description (Bowman 1973) (where there were no impervious surfaces obstructing observations and subsurface investigations). Based on the field verification of soils, the project area is entirely composed of soils from the mollisol soil order (and all mollisols occurring within the project area are of the Xeroll soil suborder⁴⁷), which do not exhibit hydric indicators or considered as a hydric soil (Figure 5).

Mollisols primarily occur in the middle latitudes and are soils common to grassland environments. Soils from this order are characterized by a thick, dark surface horizon. This fertile surface horizon, known as a mollic epipedon, results from the long-term addition of organic materials derived from humic inputs. In the U.S., soils from this order are extensive in the Great Plains prairie region. However, most of the natural grasslands within this region (and other regions supporting the mollisol soil order) have been converted into agricultural fields for crop growth. Mollisols are among the most important and productive agricultural soils in the world because of their nutrient-rich profile resulting from the high organic content in the upper horizons (the humus enrichment resulting from the decomposition of *in-situ* plant matter decomposition and litterfall input) (Brady 1990; NRCS 2011g; Pedoshpere 2011).

Mollisols are highly arable soils that have low shrink-swell capability and a high retention of available metal nutrients. Important mineral plant nutrients (e.g., calcium, magnesium, and potassium) are found through most, if not all, horizons of the mollisol soil profile. Below the surface horizon, mollisols do not show major accumulations of humus or translocated (migrated) aluminum- and iron-bearing minerals. The uppermost zone has a characteristic dark color, giving clear evidence of the decomposition of organic matter and of the wet-dry cycles over millennia that are essential to the formation of these soils. It should be noted that mollisols found in more arid environments often exhibit calcification and are not typically fertile soils (Brady 1990; NRCS 2011g; Pedoshpere 2011).

⁴⁶ While still technically considered a soil, land types are where soil materials are either excavated away, exceptionally rocky, exceptionally shallow, or so severely eroded that it cannot be classified by a soil series. Land types are given descriptive names rather than traditional soil taxonomy epithets.

⁴⁷ Xerolls are Mollisols formed under a Mediterranean climate where internal drainage is sufficient to avoid development of mottles or iron-manganese concretions larger than 2 millimeters in diameter. Xerolls have a xeric (arid or dry) moisture regime or an aridic regime that borders on being xeric (Dregne 1976).



Although not listed as a hydric or exhibiting diagnostic hydric soil features, there is the potential for one of the soils within the project area to be considered as hydric where it is primarily associated with the unvegetated ephemeral channel. This mollisol is associated with alluvial fans and is discussed below.

Mottsville Series

The Mottsville soil series is mixed mesic torripsammentic haploxerolls and consists of very deep, excessively drained soils that formed in alluvium derived from granitic rocks. Mottsville soils are on alluvial fans, fan remnants, and fan aprons. Slopes are 0 to 15% at elevations of about 2,600 feet above sea level to 3,900 feet above sea level. Mottsville soils are naturally well drained and commonly present moderate to high runoff with rapid permeability. Flooding is none to rare. The mean annual precipitation for this soil is approximately 11 inches (Bowman 1973; NRCS 2011g).

While the unvegetated ephemeral dry wash occurs within an area mapped as having the Mottsville soil series, the ephemeral wash does contain depositional fluvial sediments, which can be considered as an entisol. Entisols are young soils primarily originating from sediments (both from aeolian and fluvial/alluvial deposition) that show little alteration of the parent material from which they were derived, and that exhibit little pedogenesis (Brady 1990). Since entisols are primarily associated with fluvial processes and deposition (and, to a lesser extent, aeolian deposition), they are dynamic and do not have the ability to develop buried soil horizons, which, in turn, contribute to *in situ* development of redoximorphic features when conditions are hydric over the appropriate temporal frame. However, based on the NTCHS and NRCS definitions of a hydric soil, entisols can be considered "hydric by definition." However, no hydrophytic vegetation occupies the developed unvegetated ephemeral dry wash within the project area.

Hydrology

The project area is located within the southwest portion of the approximately 653 square mile Carrizo Creek Watershed (Hydrologic Unit Code [HUC]: 18100202). Partially contained within the Carrizo Creek Watershed is the 1,501-square-mile Anza Borrego Hydrologic Unit (HU: 722.00). Within the Anza Borrego Hydrologic Unit is the approximately 135-square-mile Jacumba Hydrologic Area (HA: 722.70). Within the Jacumba Hydrologic Area is the approximately 110-square-mile McCain Hydrologic Subarea (HSA: 722.71). All watersheds are located within the approximately 19,865-square-mile RWQCB Colorado River Region (RWQCB Region 7) (Figure 6).



The McCain Hydrologic Subarea (watersheds) drain a relatively underdeveloped region. However, these watersheds are still experiencing significant land development. The degree of imperviousness within this watershed can be used to consider the condition and health of the aquatic resources within them, which are often used as a measure for determining the amount of stress a watershed is experiencing (Shilling et al. 2005). There are no water bodies occurring within the project area that are listed on the CWA 303(d) List (impaired water bodies) (SWQCB 2011).⁴⁸

The project survey area is populated by two small (and limited) unvegetated ephemeral dry washes (or drainage features)⁴⁹ that both transition and convert into swale features near their terminuses.⁵⁰

- 1. Within the southwestern portion of the project area an ephemeral dry wash feature appears to have been created by a large storm event (as evidenced by the erosive characteristics of its nickpoint [headwaters]) and now, once established, collects surface runoff from developed swale complexes and Old Highway 80. This riverine feature is entirely dependent on discrete rainfall events for surface flow to occur. The southwestern drainage feature transitions to swale (or roadside ditch [e.g., exhibiting no OHWM or other defined and developed channel morphological features]) within approximately 550 feet downstream of the nickpoint (Figure 7).
- 2. Within the northern portion of the project area is an ephemeral dry wash feature that is a component of a micro watershed that drains an area along I-8. This drainage feature transitions to a swale complex (Figure 7).

Although these unvegetated ephemeral dry washes do not exceed approximately 1300 linear feet in length (before transitioning into swales and/or swale complexes), they are the major aquatic features occurring within the project area. Although small and limited, these ephemeral channels can be classified as a single-thread discontinuous ephemeral streams. These types of riverine features are best developed in semi-arid climates (Tooth 2000).

Arid and semi-arid climate aquatic features are commonly linear and can present themselves as straight to slightly meandering (High and Picard 1973; Whitford 2002). The unvegetated ephemeral channel within the project area generally converts from unvegetated linear to slightly meandering morphology (with limited sinuosity). Within the larger channel is

⁴⁸ Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the U.S. Additionally, Section 303 of the CWA requires states to identify and make a list of surface water bodies that are polluted (impaired). This list is referred to as the "303(d) List of Water Quality Limited Segments." (RWQCB 2011)

Ephemeral streams are characterized by sands and gravels. These sediments are characterized by exceedingly high infiltration rates and typically present seasonal flow. Ephemeral stream transmission/infiltration losses can be high enough that surface flow duration can range from a single day of high-volume surface flow to seasonal flow (Whitford 2002).

⁵⁰ Swales are microtopographic features that convey surface water in low volume and short duration (hours to days [usually in sheetflow]) and are commonly associated with riverine features (Hauer and Lamberti 2007).



a semibraided bed with regular incised compound channels and multiple small relic channels (which abut the more developed portions of the channel) as they approach the swale transition point. Compound channels are considered the most common channel types in arid regions and are characterized by a single, low-flow meandering channel inset into a wider channel (Graf 1988; Tooth 2000). These channels are highly susceptible to widening and avulsions (i.e., rapid changes in channel position and/or channel relocation) during moderate to high discharges, reestablishing a low-flow channel during subsequent low flows (USACE 2008).

The unvegetated ephemeral dry wash occurring within the project area can present itself as a micro-floodplain. The sandy substrate within the channel is composed of entisols and presents a high infiltration rate (see soils, above). Surface hydrology can potentially vary from ephemeral to intermittent. After a heavy rain event, water tables can drop quickly to low levels due to the permeability of the sandy substrate (which is a common semi-arid stream system) (Environmental Laboratory 2008).

As rainfall in arid regions is the primary source of surface water for the majority of the rivers and streams existing within these climactic regions, river and stream complexes are intermittent or ephemeral, flowing only during storm events and remaining dry for most of the year. As a result, the analysis of streamflow and changes in compound channel morphology in arid fluvial systems emphasize flood events (Graf 1988). Flood events and the resulting channel avulsion that occur within arid river systems generally consist of four types:

- 1. Flash floods
- 2. Single peak events
- 3. Multiple peak events
- 4. Seasonal floods

These flood events are partly scale dependent, with flash floods occurring on smaller stream systems (tributaries) and seasonal floods characteristic of large through-flowing rivers (Graf 1988). Because micro-compound channel fluvial systems, such as the very small ephemeral washes occurring within the project survey area, are subject to very wide fluctuations in discharges over a short period of time, their channels can frequently change configuration to accommodate large variations in surface flow as a result of storm events. As a result, arid fluvial systems usually exhibit long periods of little morphologic change interspersed with short-term dramatic changes in channel configuration. Therefore, arid stream geometry is more likely to be influenced strongly by a large event of low recurrence frequency (Allen 1999). The ephemeral washes occurring within the project survey area *do not* support wetland hydrology because, outside of (remote) flooding events, the hydrology for the ephemeral washes occurring within the project survey area is generally predictable (e.g., dependent on heavy rain events only).



Therefore, surface hydrology is solely influenced by precipitation inputs and the surrounding local topographical relief of the immediate area. The general storm water flow pattern within this portion of the project survey area is from the higher elevations of the surrounding area and into the lower elevation project area. Surface flow is west to east toward the swale feature that parallels Old Highway 80. By virtue of the surface hydrological inputs and generally flat topography, this portion of the project survey area is primarily occupied by two types of semi-arid aquatic features that flow in a west to east orientation:

- 1. Underdeveloped, unvegetated ephemeral dry washes that are discontinuous and transform into swale features and/or swale complexes.
- 2. Swale feature that traverses along Old Highway 80 and functions partially as a roadside ditch that eventually abates into upland.

The project area is designated as an area of undetermined flood hazards (Federal Emergency Management Agency [FEMA] Flood Zone Designation D). The areas near the project area are determined to be outside of the 100- and 500-year floodplains (FEMA Flood Zone Designation X) (FEMA 2011).

Jurisdictional Waters of the U.S.

The extent and distribution of the collective area of potential jurisdictional waters of the U.S. and state occurring within the project survey area is 0.40 acre (Figure 7) (please see footnote 3, above, pertaining to the JD process). Potential jurisdictional waters of the U.S. are listed for each aquatic habitat in Table 5. A summary of potential jurisdictional waters occurring within the project area is provided in Table 6. Aquatic-related habitats have been classified according to both the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) as modified by Oberbauer (Oberbauer 1996, revised 2005) and *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). Both classification systems incorporate a hierarchical structure of systems, subsystems, and classes to identify vegetation communities, wetland habitat types, and cover types. The vegetation occurring within the project area is typically associated with this semi-arid region of Southern California.

Photopoint locations and orientations of the representative photos taken during the field delineation are included in Figure 8. Detailed field photos, which are included to document the ambient conditions at the time of the formal field delineation, are included in Figures 9 through 11.



Table 5 Potential Jurisdictional Waters of the U.S. and State Occurring within the Project Area

Type of Potential Jurisdictional Waters	Type of Habitat (Holland 1986)	Type of Habitat (Cowardin et al. 1979)	Area of Aquatic Resource in Project Area (acres) ^a	Regulatory Authority ^b		
Potential Juriso	Potential Jurisdictional Waters of the U.S. and State					
Other Waters	Ephemeral Dry Wash/ Nonvegetated Channel (64200)	Riverine; Unconsolidated Bottom, Sand, Intermittently Flooded, Fresh	0.40 (1,557)	CDFG, RWQCB, and USACE		
Subtotal Potential Waters of the U.S. and State			0.40			
Potential Jurisdictional Waters of the State, Exclusively						
Vegetated Swale ^c	Southern Willow Scrub (63320)	Palustrine; Scrub/Shrub Broad- leaved, Deciduous, Seasonally Flooded, Fresh	0.10 (227 linear feet)	CDFG and RWQCB		
Unvegetated Swale ^c	Big Sagebrush Scrub (35210) ^d	Big Sagebrush Scrub is not considered an aquatic habitat by Cowardin ^e	0.16 (949 linear feet)	CDFG and RWQCB		
Subtotal Potential Waters of the State			0.26			
Grand Total Potential Jurisdictional Waters			0.66			

^a Jurisdictional waters acreage within the project area was determined by using ArcGIS. All acreages are rounded to the nearest hundredth.

Table 6
Summary of Potential Jurisdictional Waters of the U.S. and State
Occurring within the Project Area

Potential Jurisdictional Waters of the U.S. and State ^a	Area (in Acres)
Other Waters	0.40
Subtotal Jurisdictional Waters of the U.S.	0.40
Potential Jurisdictional Waters of the State, Exclusively	Area
Swale	0.26
Subtotal Jurisdictional Waters of the State	0.26
Grand Total Potential Jurisdictional Waters	0.66

^a Jurisdictional waters of the U.S. include jurisdictional waters of the state and are under the purview of CDFG, RWQCB, and USACE.

Although the County does provide regulations for "Environmentally Sensitive Lands" such as wetlands and other aquatic features, the delineated aquatic features occurring within the project area are not "jurisdictional waters of the County," per se. However, all delineated features may meet the definition of wetland as outlined by Sec. 86.602 of Chapter 6 of the RPO and may still be subject to buffer requirements and mitigation, avoidance, and permitting requirements (if impacted) pursuant to the County's RPO.

^c Based on Section 86.602 (q)(2)(aa) of the RPO, the swales may not be considered "wetlands" by the County.

^d Although this portion of the swale is unvegetated, it occurs within the larger big sagebrush scrub habitat.

^e Swales are microtopographic features that convey surface water in low volume and short duration (hours to days [usually in sheetflow]) and are commonly associated with riverine features (Hauer and Lamberti 2007).



<u>Jurisdictional Determination for Potential Waters of the U.S.</u>

All waters delineated within the project area are considered potential jurisdictional waters of the U.S. (including final acreages and types) prior to an Approved or Preliminary JD performed by USACE (with potential oversight by USEPA depending on the relationship of the delineated feature toward Traditionally Navigable Waters [TNW]). The final JD may remove portions of delineated waters from being considered as jurisdictional and/or may include additional waters not initially considered as jurisdictional during the field delineation (and, thus, not included in this JDLR).

Determining whether the delineated waters are, in fact, jurisdictional and under the regulatory administration of USACE, including the final acreages and types of jurisdictional waters occurring within the project area, is primarily based on the procedural changes and guidance outlined by the following:⁵¹

- a. The June 5, 2007, USACE/USEPA Memorandum Re: Jurisdiction Following The U.S. Supreme Court Decision In *Rapanos v. United States* on the interpretation of the *Rapanos* Supreme Court case for making a JD for waters of the U.S. (including wetlands) (USEPA/USACE).^{52,53} This memorandum provides guidance to USEPA and USACE on implementing the *Rapanos* Supreme Court decision.
- b. The June 5, 2007, USEPA/USACE Memorandum for the Field: Coordination on JDs under the CWA in light of SWANCC and Rapanos Supreme Court decisions.⁵⁴ This memorandum outlined procedures that replace the coordination procedures contained in the January 2003 USEPA/USACE guidance implementing the SWANCC decision (but leaves the remainder of that guidance unaffected) and articulates new coordination procedures for JDs affected by Rapanos (USEPA/USACE 2007).⁵⁵
- c. The May 5, 2007, USACE *Jurisdictional Determination Form Instructional Guidebook* (USACE 2007b) and the Approved JD Form.
- d. The June 5, 2007, USACE RGL 07-01, Practices for Documenting Jurisdiction under CWA Section 404 (and Rivers and Harbors Act CWA Sections 9 and 10). This RGL provides coordination requirements for Approved JDs and outlines a consistent approach for making, documenting, and approving JDs in a timely manner by USACE. This RGL also outlines the differences between Approved JDs and Preliminary JDs.

⁵⁴ "Memorandum for Director of Civil Works and USEPA Regional Administrators" (June 5, 2007).

⁵¹ This delineation followed these procedural guidance documents to ascertain the jurisdictional status of all delineated waters (including wetlands) occurring within the survey area.

⁵² "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*" (June 5, 2007).

⁵³ 126 S. Ct 2208 (2006). This case was consolidated with *Carabell v. United States*.

⁵⁵ "Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *Carabell v. United States*" (June 5, 2007).



- e. The January 28, 2008, Coordination Memorandum. This memorandum outlined the process for coordinating JDs with USEPA and USACE.
- f. The June 26, 2008, USACE RGL 08-02. This RGL primarily explains the goals of a Preliminary JD and differences between Approved JDs and Preliminary JDs. This RGL provides guidance on when an Approved JD is required and when a landowner, permit applicant, or other "affected party" can decline to request and obtain an Approved JD and elect to use a Preliminary JD instead. This RGL also outlines that it is the goal of USACE that every JD requested by an affected party be completed within 60 calendar days of receiving the request.
- g. The December 2, 2008, USACE Guidance Memorandum Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* and *Carabell v. United States*. This guidance incorporates revisions to the USEPA/USACE memorandum originally issued on June 6, 2007, after careful consideration of public comments received and based on the agencies' experience in implementing the *Rapanos* decision.
- h. The December 2, 2008, USACE Response To Comments "Clean Water Act Jurisdiction Following The Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* Guidance" issued June 5, 2007.
- i. The December 2, 2008, USACE Questions and Answers Regarding the Revised *Rapanos & Carabell* Guidance.

Nonjurisdictional Features

In taking into account federal definitions of waters of the U.S. (e.g., 33 CFR 328) and recent procedural guidance discussed herein, the swale features occurring within the project area were determined by this jurisdictional delineation and JDLR not to be potential waters of the U.S. The swale features observed and noted during the formal field delineation and not considered as potentially jurisdictional waters of the U.S. in this JDLR are based on the following reasons and justifications:

a. The swales and swale complexes occurring within the project survey area, while generally unvegetated, occur within the larger big sagebrush scrub habitat. The swales are generally poorly defined surface aquatic features characterized by low-volume, infrequent or short-duration flow, and usually shallow topographical features

⁵⁸ RGL 08-02 (paragraphs 4[a] and 5[a]).

⁵⁶ Generally, approved JDs should be used to support individual permit applications, but applicants should be made aware of their option to elect to use a Preliminary JD wherever applicants feel doing so is in their best interest (RGL 08-02 [paragraph 4(h)]).

⁵⁷ RGL 08-02 (paragraph 4) outlines that Preliminary JDs cannot be appealed.



> in the landscape that may convey water across upland areas during and following uncommon large storm events.59

- b. Swales are generally not considered as potential waters of the U.S. by USACE based on the 2007 Guidebook (USACE 2007b) and the June 5, 2007, Joint Guidance Memorandum. Swales are generally not considered waters of the U.S. because they are not tributaries to receiving waters nor do they exhibit an OHWM (as defined by 33 CFR Part 328.3[e] and identified in RGL 05-05). Swales are characterized by the conveyance of a low volume of surface water and infrequent and short duration flow without a significant nexus to a TNW (or a USACEdesignated jurisdictional water of the U.S. [in this case, the Salton Sea]). Considering these conditions, it is anticipated that the swales within the project survey area would not be considered waters of the U.S. by USACE.
- c. All drainage ditches and culverts, which have been constructed wholly in uplands, and/or culverts and ditches with connectivity to a Municipal Separate Storm Sewer System (MS4) can be considered point sources, 60 but not navigable waters.
- d. Significantly interrupted OHWM or OHWM that cease and/or abates into the upland landscape outside of the 10-year flood extent of major drainages occurring within the survey area are either isolated waters or exempt waters and, thus, not under regulatory administration by USACE.
- e. Upland erosional features (including gullies) characterized by low volume, short duration flow, and/or uncommon storm events, or above headwaters of riverine systems.

Preliminary JD Form for Potential Jurisdictional Waters of the U.S.

Based on RGL 08-02, the applicant may elect to use a Preliminary JD to voluntarily waive or set aside questions regarding CWA jurisdiction over a particular site, usually in the interest of allowing the landowner or other "affected party" to move ahead expeditiously to obtain CWA Section 404 permit authorization where the party determines that it is in its best interest to do so.61

As of this writing, this jurisdictional delineation presents 0.40 acre of potential jurisdictional waters of the U.S. The final acreages of jurisdictional waters delineated within the project survey area will be based on the JD process per USACE RGL 08-02 (see above). For this particular jurisdictional delineation, the formal procedure for obtaining a JD requires the

⁵⁹ Even when not considered a jurisdictional water of the U.S. or state, swales may still contribute to a surface hydrologic connection between upland and aquatic features. However, such hydrological connections are dependent on large, uncommon storm events. 60 33 U.S. Code (USC) §1362(14).

⁶¹ RGL 08-02 outlines that the permit applicant or other "affected party" can decline to request and obtain an Approved JD and elect to use a Preliminary JD instead for nonbinding written indication that there may be waters of the U.S., including wetlands, on a parcel or indications of the approximate location(s) of waters of the U.S. or wetlands on a parcel(s) or project area.



submittal of a completed Preliminary JD (for assertion of jurisdictional waters) to USACE (Los Angeles District, South Coast Branch). 62

This JDLR and attached Preliminary JD Form (Attachment C) are meant to provide assistance and support to USACE to determine that the 0.40 acre of delineated aquatic features occurring within the project area "may be" jurisdictional waters of the U.S. and, thus, under its regulatory administration. For this jurisdictional delineation occurring within the survey area, a Preliminary JD Form was prepared to present the following:

 0.40 acre of aquatic features composed of unvegetated ephemeral dry wash (other waters of the U.S.) that "may be" jurisdictional waters of the U.S.

The completed Preliminary JD Form for this jurisdictional delineation is located in Attachment C.

Jurisdictional Waters of the State

As shown in Table 5, above, areas under the jurisdiction and regulatory administration of CDFG and the RWQCB include the 0.40 acre of potential jurisdictional waters of the U.S. and an additional 0.26 acre of swales (composed of vegetated swale [0.10 acre] and unvegetated swale [0.16 acre]) as potential jurisdictional waters of the state, exclusively (Figure 7).

Discussion

Avoidance and Minimization of Potential Impacts

Impact avoidance and minimization measures to jurisdictional waters of the U.S. and state must be implemented through project design and be employed during the construction process to avoid and minimize potential impacts to jurisdictional aquatic features to the greatest practicable extent. If no regulated activities resulting in permanent and/or temporary impacts were to occur toward jurisdictional waters (as a result of this Proposed Project), then no requisite authorizations or permitting would be required by the resource agencies (see regulatory framework and purpose of jurisdictional delineation sections of this JDLR, above).

Potential Impacts and Requisite Permitting

If it is determined that anticipated unavoidable impacts (permanent and/or temporary) will occur to jurisdictional waters of the U.S. and/or state as a result of this Proposed Project, then meeting all terms and conditions of federal and state law will be required for the

⁶³ Sections 4 and 7 of RGL 08-02.

⁶² The USACE district engineer retains the discretion to use an Approved JD in any other circumstance where he or she determines that it is appropriate given the facts of the particular case (RGL 08-02 [4][c]).



issuance of the following authorizations and permits (as applicable) from the appropriate resource agencies.

As a requirement and component of all authorizations and permits discussed below, the development of a conceptual mitigation, maintenance, and monitoring plan (for compensatory mitigation in the form of creation, restoration, or enhancement mitigation) would be necessary. This plan should include details regarding site preparation (e.g., grading), planting specifications, and irrigation design, as well as maintenance and monitoring procedures. The plan should outline yearly success criteria and remedial measures should the mitigation effort fall short of the success criteria. Any appropriate mitigation that cannot be achieved through on-site creation/restoration and enhancement should be performed off-site, typically per agency guidance within the same hydrologic unit (watershed) where impacts occur. Alternatively, the mitigation obligations may also be satisfied by participating in a fee-based mitigation program through an approved mitigation bank. Any proposed mitigation is subject to the resource agencies' review and discretion; thus, the mitigation obligations for the impacts to jurisdictional aquatic habitats may change from those recommended here.

CWA Section 404 Permitting

It is anticipated that USACE may recommend authorizing this project under the CWA Section 404 Nationwide Permit Program (NWP) (33 CFR 330).⁶⁴ Specifically, it is anticipated that USACE will recommend authorizing this project under Section 404 by complying with the upcoming NWP for "Land Based Renewable Energy Generation Facilities." ^{65,66}

For CWA Section 404 authorization, USACE will require compensatory mitigation for both temporary and permanent impacts that cannot be avoided.⁶⁷

CWA Section 401 Water Quality Certification

For Section 401 State Water Quality Certification/Waiver for an action that may result in degradation of waters of the state under Section 401 of the CWA, the RWQCB implements the water quality certification process for any activity that requires a federal permit or license

6

It is at the discretion of USACE to assign the type of NWP(s) that it determines to qualify for a project.
 Compensatory mitigation is used to meet the U.S. overall policy goal of "No Net Loss" of wetlands. However, the policy does not differentiate between no net loss of function or no net loss in area (Council on Environmental Quality 1993).

⁶⁴ Although CWA Section 404 authorization through the NWP program is for the loss of jurisdictional waters resulting from the discharge of dredge or fill material (33 CFR 323), the USACE reserves the right (i.e., discretion) to modify, suspend, or revoke NWP authorizations (33 CFR 330[e] and Reissuance of Nationwide Permits; Final Notice, 72 Federal Register 47 [March 12, 2007]).

This NWP is based on the February 16, 2011, *Proposal to Reissue and Modify Nationwide Permits* (FR/ Vol. 76, No. 32 / Wednesday, February 16, 2011 / Notices) and is predicated on the assumption that this Proposed Project and the related activities occurring within federally regulated waters meet all terms and conditions of the NWP program. New NWPs are anticipated to be issued in March 2012 and include an upcoming (or proposed) NWP for renewable energy projects.

66 It is at the discretion of USACE to assign the type of NWP(s) that it determines to qualify for a project.



and that may result in the discharge of pollutants into waters of the U.S. (which include wetlands). The RWQCB reviews the proposal to determine whether the activity would comply with state water quality objectives and, subsequently, will either issue a certification with conditions or deny the certification. According to the CWA, water quality standards include beneficial uses, water quality objectives, and complying with USEPA's anti-degradation policy.⁶⁸

In many cases, the conditions of the RWQCB CWA Section 401 certification are more stringent than the CWA Section 404 permit. All parties proposing to discharge waste that could affect waters of the state, but do not affect federal waters (which requires a CWA Section 404 permit *and* CWA Section 401 certification) must file a Report of Waste Discharge (ROWD) with the appropriate RWQCB.⁶⁹

CFGC Section 1600 et seq. Permitting

By submitting a Notification for a Lake or Streambed Alteration Agreement (SAA) to the appropriate CDFG field office (South Coast Region), CDFG will ascertain which (or all) of the delineated aquatic features occurring within the project area will be under its regulatory administration. The SAA Notification process also allows CDFG to determine whether aquatic features will become "substantially adversely affected" under CFGC Section 1602(a), and to provide guidance on requisite and appropriate compensatory mitigation for any unavoidable impacts to these aquatic resources as a result of the Proposed Project.

CWC Section 13000 et seg. (Porter-Cologne) Waste Discharge Requirement (or Waiver)

The RWQCB regulates the "discharge of waste" to waters of the state. The definition of waters of the state is broader than that for waters of the U.S. in that all waters are considered to be a water of the state regardless of circumstances or condition. The term "discharge of waste" is also broadly defined in Porter-Cologne, such that discharges of waste include fill, any material resulting from human activity, or any other "discharge" that may directly or indirectly impact waters of the state. As conditional to this permit, best management practices (BMPs) will be required to ensure compliance with state water quality standards. BMPs can also be specified by the RWQCB based on the ROWD (filed with the appropriate RWQCB by the applicant). The RWQCB is authorized to regulate discharges of waste and fill material to waters of the state (including "isolated" waters and wetlands) through the issuance of a Waste Discharge Requirement (WDR). The State (WDR) are commonly issued based on the threshold of allowable pollutants into waters of the state.

Under Porter-Cologne, all applicants proposing to discharge waste that could affect the quality of waters of the state, other than into a community sewer system, must file with the appropriate RWQCB an ROWD containing such information and data as may be required by

⁶⁹ CWC Section 13260.

⁷¹ CWC Section 13263.

⁶⁸ 40 CFR Part 131.12.

⁷⁰ "Waters of the state" is defined in CWC Section 13050(e).



the RWQCB.⁷² The RWQCB will then respond to the ROWD by issuing a WDR in a public hearing or by waiving WDRs (with or without conditions) for that proposed discharge. The RWQCB has a statutory obligation to prescribe WDRs, except where the RWQCB finds that a waiver (with or without conditions) of WDRs for a specific type of discharge is in the public interest.⁷³ Therefore, all parties proposing to discharge waste that could affect waters of the state, but do not affect federal waters (which requires authorization under CWA Section 404 and certification under CWA Section 401) must file an ROWD with the appropriate RWQCB prior to issuance of the WDR.⁷⁴ The ROWD/WDR is also subject to the resource agencies' review and discretion for BMPs and mitigation.

Section 86.602 of the RPO

Issuance of discretionary development permits will be contingent upon determining compliance under Section 86.602 of the RPO (as applicable) by DPLU.

Please contact me at (619) 764-6829 or joshua.zinn@aecom.com with any questions or requests concerning this matter.

Sincerely,

Joshua Zinn

Ecologist and Regulatory Specialist

cc: Brison Ellinghaus, Project Development Manager

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⁷² CWC Section 13260(a).

⁷³ CWC Section 13269.

⁷⁴ CWC Section 13260.

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Attachment A – Figures:

Figure 1 – Regional Map

Figure 2 – Project Vicinity

Figure 3 – Survey Area

Figure 4 – Vegetation Communities

Figure 5 – Soils

Figure 6 – Watersheds

Figure 7 – Potential Jurisdictional Waters of the State

Figure 8 – Photopoint Locations

Figure 9 – Representative Photos 1 and 2

Figure 10 – Representative Photos 3 and 4

Figure 11 – Representative Photo 5

Attachment B – Wetland Determination Data Forms – Arid West Region (Version 2.0)

Attachment C – Preliminary JD Form

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References

AECOM

2012 LanWest Biological Resource Report. Prepared for Soitec Solar LLC. January.

Allen, A. O.

1999 *Urbanization and Dryland Fluvial Systems – Modeling Hydrogeomorphic Change in Ephemeral Streams*. Ph.D. dissertation. University of California, Los Angeles, pp. 1–240.

Bowman, R.

1973 Soil Survey of the San Diego Area, California. Prepared by the U.S. Department of Agriculture, Soil Conservation Service and Forest Service in cooperation with the University of California Agricultural Experiment Station; the U.S. Department of the Interior, Bureau of Indian Affairs; and the Department of the Navy, U.S. Marine Corps.

Brady, N. C.

1990 *The Nature and Property of Soils,* 10th ed., Macmillan Publishing Company, New York.

California Environmental Protection Agency (CalEPA)

2011 California Watershed Portal (CWP). Available at http://cwp.resources.ca.gov/. Accessed December 2011.

California Environmental Resources Evaluation System (CERES)

2011 California Wetlands Information System Wetland Databases and Inventories. Available at http://www.ceres.ca.gov/. Accessed December 2011.

California Watershed Network (CWN)

2011 Available at http://www.watershednetwork.org/. Accessed December 2011.

California State University Sacramento (CSUS) Office of Water Programs

2011 Available at http://www.owp.csus.edu/research/stormwatertools/. Accessed December 2011.

Council on Environmental Quality (CEQ)

1993 White House Office on Environmental Policy, *Protecting America's wetlands: A Fair, Flexible, and Effective Approach.* August. Available at http://www.wetlands.com/fed/aug93wet.htm. Accessed December 2011.

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County of San Diego

2010 County of San Diego Guidelines for Determining Significance to Biological Resources and Report Format and Content Requirements. Fourth Revision September.

Cowardin, L., V. Carter, F. Golet, and E. LaRoe

1979 Classification of Wetlands and Deepwater Habitats of the United States.
 U.S. Department of Interior. U.S. Fish and Wildlife Service. FWS/OBS-79/31.
 December.

Dregne, H. E.

1976 Soils of Arid Regions. American Elsevier Publishing Company. New York.

Environmental Laboratory

- 1987 Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station. Vicksburg, Mississippi.
- 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). September.

Federal Emergency Management Agency (FEMA)

2011 Definitions of FEMA Flood Zone Designations. Available at http://www.msc. fema.gov. Accessed December.

Federal Interagency Committee for Wetland Delineation

Federal Manual for Identifying and Delineation Jurisdictional Wetlands.
 U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S.
 Fish and Wildlife Service, and U.S.D.A. Soil Conservation Service, Washington,
 D.C. Cooperative Technical Publication. 76 pp. plus appendices.

Graf, W. L.

1988 Fluvial Processes in Dryland Rivers. Springer-Verlag: New York.

Hauer, F. R., and G. A. Lamberti (editors)

2007 Methods in Stream Ecology. Second Edition. London: Academic Press.

High, L. R., and M. D. Picard

1973 *Sedimentary Structures of Ephemeral Streams.* Elsevier Publishing Company: Amsterdam, pp. 32.

Holland, R. F.

1986 Preliminary Descriptions of the Terrestrial Natural Communities of California.

Prepared for California Department of Fish and Game.



Lichvar, R. W., and L. Dixon

2007 Wetland Plants of Specialized Habitats in the Arid West. USACE ERDC/CRREL TR-07-8. June.

Lichvar, R. W., and J. J. Field

2007 Review and Synopsis of Natural and Human Controls on Fluvial Channel Processes in the Arid West USACE ERDC/CRREL TR-07-16. September.

Lichvar, R. W., D. C. Finnegan, M. P. Ericsson., and W. Ochs

2006 Distribution of Ordinary High Water Mark (OHWM) Indicators and their Reliability in Identifying the Limits of Waters of the United States in Arid Southwestern Channels. USACE ERDC/CRREL TR-06-5. February.

Lichvar, R. W., and S. M. McColley

A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. USACE ERDC/CRREL TR-08-12. August.

National Oceanic and Atmospheric Administration (NOAA)

2011a National Weather Service Forecast Office. Available at http://www.nws.noaa.gov/climate/index.php?wfo=sgx. Accessed December 2011.

2011b National Weather Service Telecommunications Operations Center, Campo. California, United States. Available at http://weather.noaa.gov/weather/current/KCZZ.html. Accessed December 2011.

National Research Council (NRC)

1995 *Wetlands: Characteristics and Boundaries*. National Academy Press, Washington, D.C.

National Technical Committee for Hydric Soils (NTCHS)

1995 Criteria for Hydric Soils, USDA-NRCS Hydric Soils of the United States. Introduction. Available at http://www.statlab.iastate.edu/soils/hydric/intro.html. Accessed December 2011.

Natural Resource Conservation Service (NRCS)

2011a NRCS Soils Website. Available at http://soils.usda.gov/. Accessed December 2011.

2011b Web Soil Survey. Available at http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm. Accessed December 2011.



- 2011c Soil Survey Geographic Database (SSURGO). Natural Resources Conservation Service, U.S. Department of Agriculture. Available at http://www.ncgc.nrcs.usda.gov/products/datasets/ssurgo/. Accessed December 2011.
- 2011d U.S. General Soil Map (STATSGO). Natural Resources Conservation Service, U.S. Department of Agriculture. Available at http://www.ncgc. nrcs.usda.gov/products/datasets/statsgo/description.html. Accessed December 2011.
- 2011e Hydric Soil Technical Note 1. Available at http://soils.usda.gov/use/hydric /ntchs/tech_notes/note1.html. Accessed December 2011.
- 2011f National List of Hydric Soils. Available at http://soils.usda.gov/use/hydric/. Accessed December 2011.
- 2011g Official Soil Series Descriptions. Available at http://soils.usda.gov/technical/classification/osd/index.html. Accessed December 2011.

Oberbauer, T.

- 1996 Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. San Diego Association of Governments, San Diego, California, 6 pp. October.
- 2005 Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. Department of Planning and Land Use County of San Diego, San Diego, California. 6 pp. March.
- Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge
 - 2008 Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," Robert F. Holland, Ph.D., October 1986. March. Department of Planning and Land Use County of San Diego, San Diego, California, 75 pp. March.

Pedosphere

2011 Soil Phase. Available at http://www.pedosphere.com/resources/ CSSC3rd/chapter15.cfm. Accessed December 2011.

Project Clean Water

2011 Project Clean Water. Available at http://www.projectcleanwater.org/. Accessed December 2011.

Reed, P. B., Jr.

1988 National List of Plant Species that Occur in Wetlands: California (Region 0). U.S. Fish and Wildlife Service Biological Report 88(26.10).



- Regional Water Quality Control Board, Colorado River Basin (RWQCB)
 - 1993 Water Quality Control Plan Colorado River Basin-Region 7 (as amended).

 Available at http://www.swrcb.ca.gov/rwqcb7/publications_forms/publications
 /docs/basinplan_2006.pdf. Accessed December 2011.
 - 2011 CWA Section 303(d) Colorado River Basin *List of Water Quality Limited Segments*. Available at http://www.waterboards.ca.gov/sandiego/water_issues/programs/303d_list/index.shtml. Accessed December 2011.
- San Diego Association of Governments (SANDAG)
 - 2011 SanGIS. Available at http://www.sangis.org/sangisinteractive/viewer/viewer.asp. Accessed December 2011.
- San Diego County Flood Control District (SDCFCD)
 - 2011 Available at http://www.co.san-diego.ca.us/flood_control/. Accessed December 2011.
- San Diego County Water Authority (SDCWA)
 - 2011 Available at http://www.sdcwa.org/manage/conservation.phtml. Accessed December 2011.
- San Diego County Watershed Network
 - 2011 Available at http://map.sdsu.edu/group 2001/group3/index.htm. Accessed December 2011.
- Sawyer, J. O., and T. Keeler-Wolf
 - 2008 A Manual of California Vegetation. Second Edition. California Native Plant Society in Association with the California Department of Fish and Game.
- Shilling, F., S. Sommarstrom, R. Kattelmann, B. Washburn, J. Florsheim, and R. Henly
 2005 California Watershed Assessment Guide. Prepared for the California Resources
 Agency. July.
- State Water Resources Control Board (SWRCB)
 - Total Maximum Daily Load Program. Available at http://www.swrcb.ca.gov/water_issues/programs/tmdl/303d_lists.shtml. Accessed December 2011.
- Tiner, R.
 - 1999 Wetland Indicators. A Guide to Wetland Identification, Delineation, Classification, and Mapping. Lewis Publishers. Boca Raton, Florida.
- Tooth, S.
 - 2000 Process, Form and Change in Dryland Rivers: A Review of Recent Research. Earth-Science Reviews 51: 67–107.



- University of California at Davis (U.C. Davis)
 - 2011a The Information Center for the Environment. Available at http://ice.ucdavis.edu/. Accessed December 2011.
 - 2011b California Soil Resource Lab NRCS-NRCS SSURGO and STATSGO digital soil survey data. Available at http://casoilresource.lawr.ucdavis.edu/drupal/. Accessed December 2011.
- U.S. Army Corps of Engineers (USACE)
 - 2006 Distribution of Ordinary High Water Mark (OHWM) Indicators and Their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwestern Channels. USACE ERDC/CRREL TR-08-12.
 - 2007a Review and Synopsis of Natural and Human Controls on Fluvial Channel Processes in the Arid West, USACE ERDC/CRREL TR-07-16.
 - 2007b U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook. Prepared in cooperation with USEPA. May.
 - 2008 A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. Engineering Research and Development Center. August.
- U.S. Climate Data (USCD)
 - 2011 Climate, Campo, California. Available at http://www.usclimatedata.com/climate.php?location=USCA0167. Accessed December 2011.
- U.S. Department of Agriculture (USDA)
 - 2006 Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 6.0. Washington, D.C.
 - 2010 National Agricultural Imagery Program.
- U.S. Environmental Protection Agency (USEPA)
 - 2011 Digital Watershed. Available at http://www.iwr.msu.edu/dw/. Accessed December 2011.
- U.S. Fish and Wildlife Service (USFWS)
 - 2011 National Wetlands Inventory Interactive Wetlands Mapper. Available at http://www.nwi.fws.gov. Accessed December 2011.
 - 1996 National List of Vascular Plants the Occur in Wetlands: 1996 Summary.

 March. Available at: http://library.fws.gov/Pubs9/wetlands_plantlist96.pdf.

 Accessed December.

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Therese Bradford, Chief, San Diego Section USACE South Coast Branch January 30, 2012 Page 48

U.S. Geological Survey (USGS)

- 2011 National Hydrography Dataset. Available at http://nhd.usgs.gov/. Accessed December 2011.
- 1997 Live Oak Springs 7.5 minute Quadrangle.
- 1996 U.S. Geological Survey Water-Supply Paper 2425. *National Water Summary on Wetland Resources: Wetland Hydrology, Water Quality, and Associated Functions*

Western Regional Climate Center (WRCC)

- 2011a Campo Station Map. Available at http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1424. Accessed December 2011.
- 2011b Boulevard Station Map. Available at: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1010. Accessed December 2011.
- 2011c http://www.wrcc.dri.edu/. Accessed December 2011.

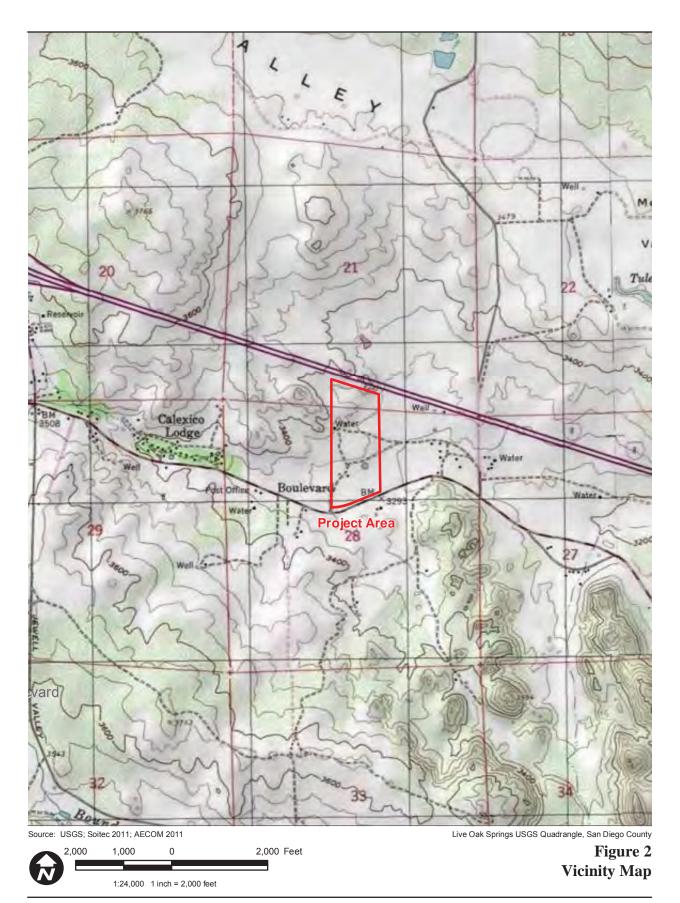
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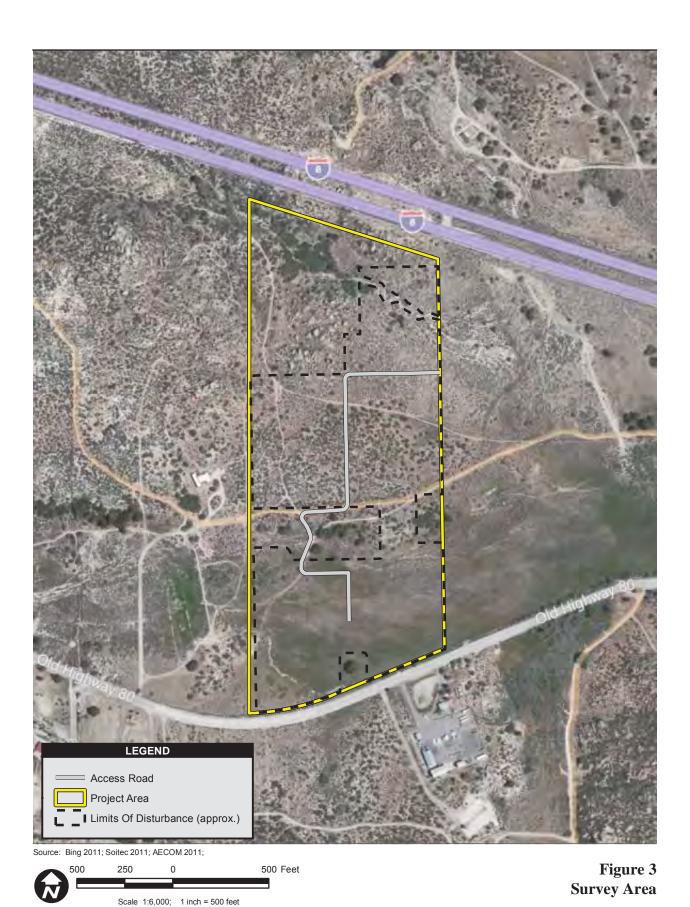
2002 *Ecology of Desert System*. Academic Press: Burlington, Massachusetts, pp. 32–33.

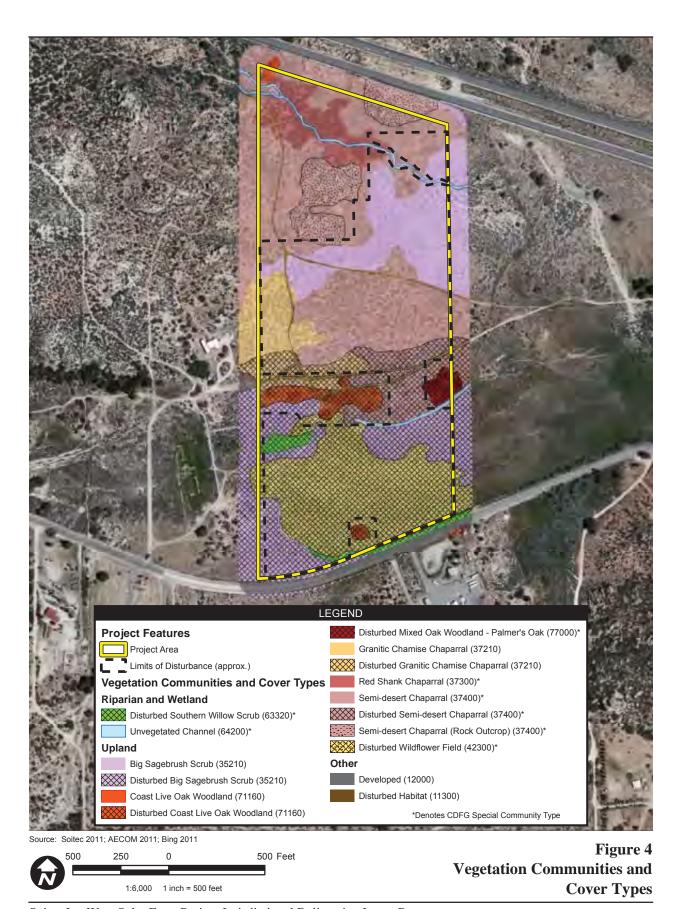
ATTACHMENT A FIGURES

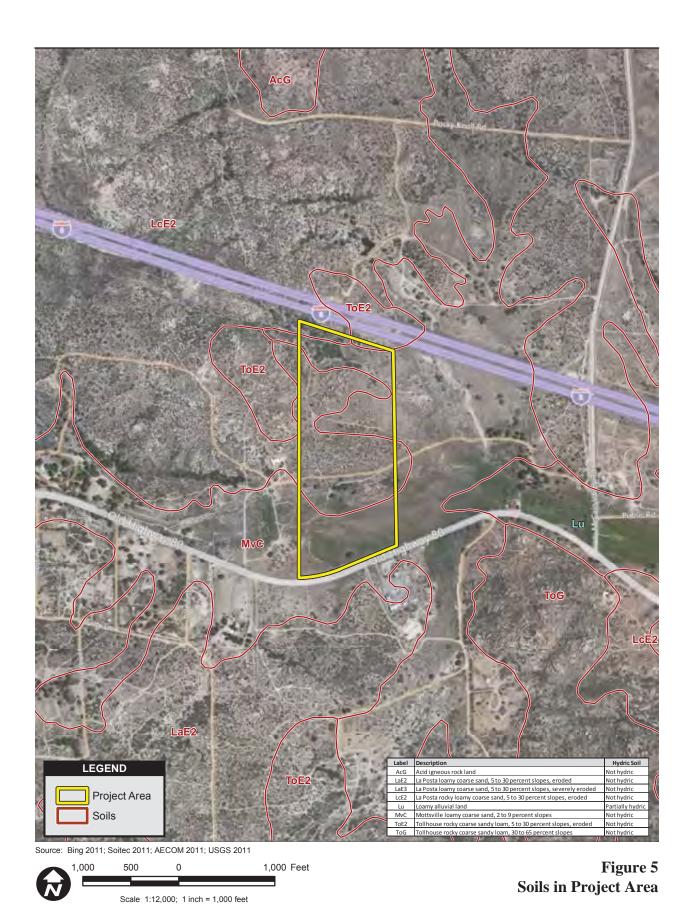


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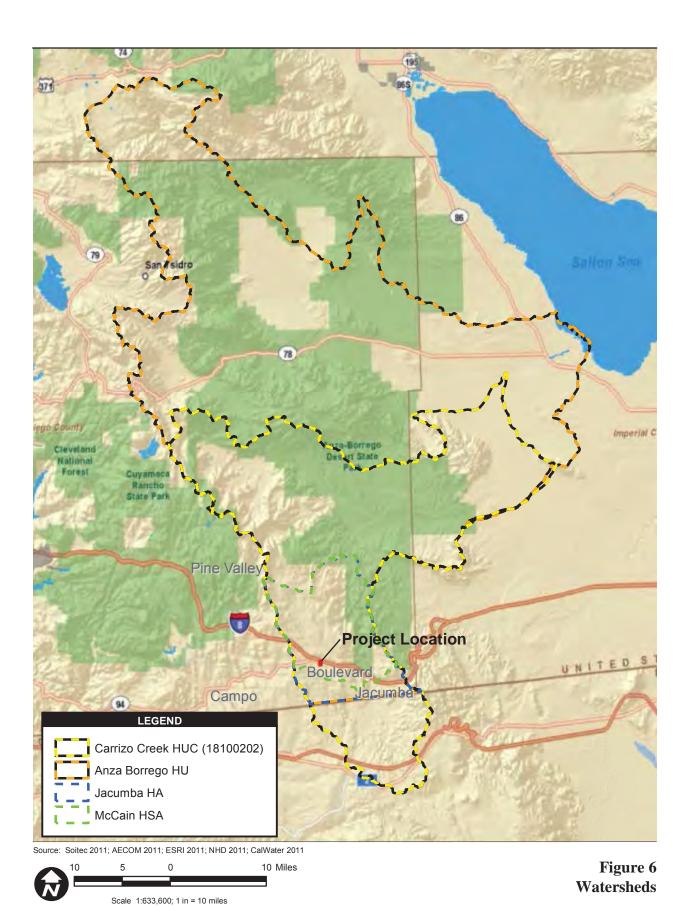




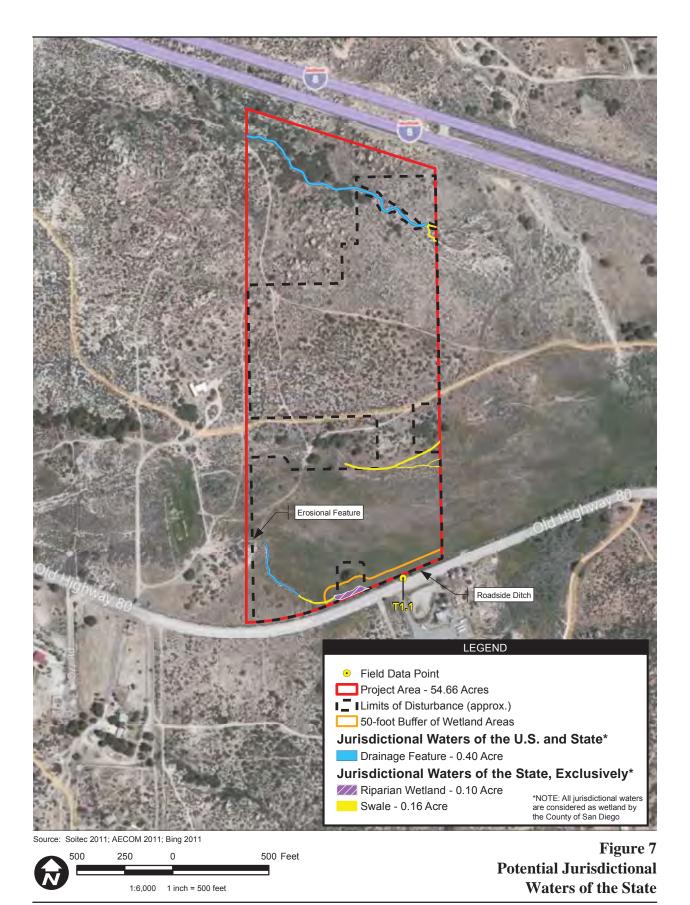


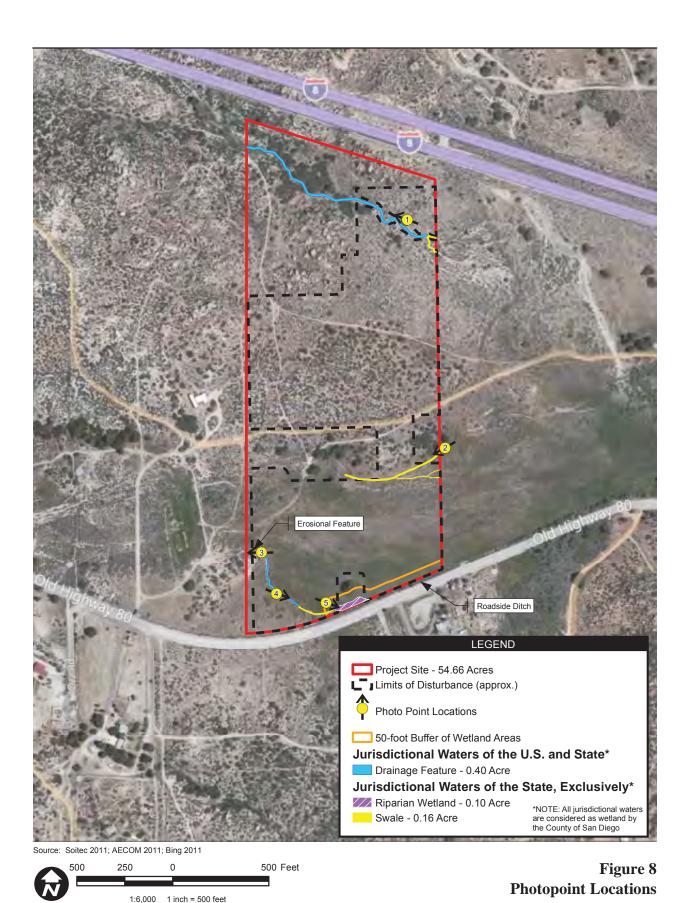


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Photograph 1: Looking west (upstream) at an unvegetated ephemeral dry wash that contains an OHWM.



Photograph 2: Looking west (downstream) at a swale lacking an OHWM that abates into upland habitat.

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Figure 9

Representative Photographs 1 and 2



Photograph 3: Looking west at a non-jurisdictional erosive feature that originates immediately west of the project boundary.



Photograph 4: Looking south east (downstream) at an unvegetated ephemeral dry wash.

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Figure 10

Representative Photographs 3 and 4



Photograph 5: Looking south east (downstream) at an unvegetated ephemeral dry wash. The channel converts to a roadside ditch at this point.

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Figure 11

Representative Photograph 5

ATTACHMENT B

WETLAND DETERMINATION DATA FORMS – ARID WEST REGION (VERSION 2.0)

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Soitec Solar - LanWest		City/Cour	nty:Boulevar	d/San Diego	Samplin	ng Date:12-08	3-11
Applicant/Owner: Soitec Solar, LLC				State:CA	_ Samplin	ng Point:T1.1	
Investigator(s): B. Felten and J. Zinn		Section,	Township, Ra	ange:Section 28, Town	- iship 17S	, Range 7E	
Landform (hillslope, terrace, etc.): Graded terrance		Local rel	lief (concave,	convex, none): Convex	(Slope (%	%):1-2
Subregion (LRR):C - Mediterranean California	Lat: 32.	663448		Long: -116.267484		Datum: W	/GS 84
Soil Map Unit Name: Mottsville Loamy Coarse Sand 2			es	NWI classit	fication: N		
Are climatic / hydrologic conditions on the site typical for thi				(If no, explain in	Remarks.)		
	significantly			"Normal Circumstances			No (
	naturally pro			eeded, explain any answ	•		110
						,	4.
SUMMARY OF FINDINGS - Attach site map	snowing	sampii	ing point i	ocations, transect	s, impor	tant teatur	es, etc.
Hydrophytic Vegetation Present? Yes N	lo 💿						
	lo 💿	Is	the Sample	d Area			
	lo 💿		ithin a Wetla				
Remarks: Field datapoint taken within constructed s							
however the understory is dominated by up							
groundwater that is too deep to support we							
investigation. There is surface water but is VEGETATION	18 10W VO	nume and	u short dura	tion that rapidly infin	rates the s	sandy toant s	soil. ±
VEGETATION	Absolute	Dominar	nt Indicator	Dominance Test wo	rksheet:		
Tree Stratum (Use scientific names.)			? Status	Number of Dominant			
1. Salix laevigata	25	Yes	FACW	That Are OBL, FACW		1	(A)
2				Total Number of Dom	inant		
3		-		Species Across All St		3	(B)
4				Percent of Dominant	Species		
Total Cove	er: 25 %			That Are OBL, FACW		33.3 %	(A/B)
1.Artemisia tridentata	10	Yes	UPL	Prevalence Index wo	orksheet:		
2.Baccharis sergiloides	<u>− 10</u> ≤5	$\frac{1 \text{ cs}}{\text{No}}$	FAC	Total % Cover of:		Multiply by:	
3.Baccharis salicifolia	- <u></u> 	No	FAC	OBL species			0
4.				FACW species			50
5.				FAC species			30
Total Cove	r: 10 %			FACU species		4 =	0
Herb Stratum				UPL species	45 x	5 = 2	225
1.Hirschfeldia incana	15	Yes	UPL	Column Totals:	80 (A		05 (B)
2.Galium aparine	10	No	UPL				
3. Hordeum marinum ssp. gussoneanum	10	No	FAC	Prevalence Inde			.81
4. Camissonia californica	10	No	UPL	Hydrophytic Vegeta		itors:	
5. <u>Ambrosia psilostachya</u>	<u>≤5</u>	No	FAC	Dominance Test			
6. Juncus mexicanus	<u>≤5</u>	No	FACW	Prevalence Index			
7.Rumex salicifolius	<u>≤5</u>	No	FACW	Morphological Add			
8. Sonchus sp.	<u>≤5</u>	No	FACW	- Problematic Hydr			,
Total Covel Woody Vine Stratum	r: 45 %					J (LA)	
1.				¹ Indicators of hydric s	soil and we	etland hydrolo	ogy must
2.				be present.		, , , , , , , , , , , , , , , , , , ,	37
Total Cove	r: %			Hydrophytic			
				Vegetation			
	r of Biotic C		<u>%</u>		es 🔾	No 💿	
Remarks: Pg 91 of Chapter 5 of the 2008 Supplement germinated during unusually high water of there may be a hydrophytic overstory and	events or u	under we	etter condition	ons than currently exi	st at the si	ite. In such s	situations,

US Army Corps of Engineers

Arid West - Version 2.0

soil features and/or wetland hydrology is problematic, more emphasis should be placed on the understory, which may be more indicative of current wetland or non-wetland conditions. Erodium was also observed near the point of investigation.

Sampling Point: T1.1 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Color (moist) Type¹ Loc² Texture (inches) Color (moist) % 0-20 7.5YR3/2 N/A N/A N/A N/A Sandy Loam ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils: Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR B) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Hydrogen Sulfide (A4) Loamy Gleved Matrix (F2) Red Parent Material (TF2) Depleted Matrix (F3) Other (Explain in Remarks) Stratified Layers (A5) (LRR C) 1 cm Muck (A9) (**LRR D**) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Depressions (F8) Thick Dark Surface (A12) ³Indicators of hydrophytic vegetation and Vernal Pools (F9) Sandy Mucky Mineral (S1) wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes Remarks: Mottsville Loamy Coarse Sand 2 to 9 Percent Slopes is not listed as hydric by the NRCS. Soil at point of investigation is likely native loam mixed with fill material (the small presence of gravel observed in soil pit) is not a result of depositional events by water, rather small amount of gravel is likely from backfill during roadside ditch (or swale) creation and placement. Negative α, α -dipyridyl test at point of investigation. Although this soil can potentially perform as a hydric soil if it is depositional events, there are not significant amounts of depositional materials observed at the point of investigation. Additionally, hydrophytic vegetation and wetland hydrology are not present (either by themselves or simultaneously) at the point of investigation. Therefore the potential for this soil, at the point of investigation, to be considered 'hydric by definition, is none. **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Sediment Deposits (B2) (Riverine) Saturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) (Riverine) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Surface Soil Cracks (B6) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Recent Iron Reduction in Plowed Soils (C6) Shallow Aguitard (D3) Water-Stained Leaves (B9) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Yes (No (

Remarks: No wetland hydrology indicators observed at the point of investigation. However, this datapoint was taken within a swale feature that supports low volume/short duration flows. Infiltration rate appears to be rapid and does not retain surface water to promote or create wetland hydrology conditions.

Unknown

Wetland Hydrology Present?

Depth (inches):

Depth (inches):

Depth (inches):

Surface Water Present?

(includes capillary fringe)

Yes (

Yes (

No (

No 💿

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Water Table Present?

Saturation Present?

(Nο

ATTACHMENT C PRELIMINARY JD FORM

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

U.S. Army Corps of Engineers

Soitec Solar LanWest Solar Farm

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

- A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): January 18, 2012
- B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Brison Ellinghaus, Project Development Manager Soitec Solar, LLC 4250 Executive Square, Suite 770 La Jolla, CA 92037

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Los Angeles District Regulatory Division, Los Angeles Section, San Diego Section

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The community of Boulevard. Please refer to the Introduction, Summary and the Project Description located in the Jurisdictional Delineation Letter Report (JDLR).

(Use the attached table to document multiple waterbodies at different sites)

State: CA County/parish/borough: San Diego County City: Boulevard

Center coordinates of site (lat/long in degree decimal format): Lat: 32.666640 Long: -116.268650

UTM: 11N 14564.11. m E 3614564.11 m N

Name of nearest waterbody: Walker Creek (which is a tributary to Carrizo Creek). The Salton Sea is the closest receiving TNW Identify (estimate) amount of waters in the review area: 0.40 acre

Non-wetland waters: 0.40 acre

Cowardin Class: Riverine Stream Flow: Ephemeral

Wetlands: N/A Cowardin Class: N/A

Name of any waterbodies on the site that have been identified as Section 10 waters: None

Tidal: Non-Tidal:

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Ш	Office (Desk) Determ	nnation.	Date:	
\boxtimes	Field Determination.	Date(s):	December 9	9. 2011

- 1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
- 2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

A. SUPPORTING DATA. Data reviewed checked	d for JD (check all that apply - checked items shall be included in case file and, where
 ☑ Data sheets prepared/submitted by or on Supplement Wetland Determination ☐ Office concurs with data sheets/del ☐ Office does not concur with data sh ☐ Data sheets prepared by the Corps: ☐ Corps navigable waters' study: ☐ U.S. Geological Survey Hydrologic Atla ☐ USGS NHD data. ☐ USGS 8 and 12 digit HUC maps. 	or on behalf of the applicant/consultant: See Attachment A (Figures) of the JDLR. In behalf of the applicant/consultant. Please see Attachment B of the JDLR (2008) Data Forms — Arid West Region [Version 2.0]). Illineation report. heets/delineation report.
 National wetlands inventory map(s). Ci State/Local wetland inventory map(s): FEMA/FIRM maps: Zone X 100-year Floodplain Elevation is: 	Service Soil Survey. Citation: Web Soil Survey. ite name: NWI Website. (National Geodetic Vertical Datum of 1929) e): 2010 Aerial Maps of the survey area (Digital Globe 2010)
 ☑ Other (Name & Date): See Figures in the Description of the Previous determination (s). File no. and I Other information (please specify): Please 	
IMPORTANT NOTE: The information record upon for later jurisdictional determinations.	ded on this form has not necessarily been verified by the Corps and should not be relied
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Appendix A – Sites

PJD Date: January 18, 2012

District Office: San Diego Field Office File/ORM #

State: CA City/County: Boulevard/San Diego

Person Requesting PJD: Mr. Brison Ellinghaus

Waters Type	Habitat	Latitude	Longitude	Cowardin Class	Estimated Amount of Aquatic Resource in Review Area (in acres)	Class of Aquatic Resource
Other Waters (Drainage Features [OHWM])	Nonvegetated Channel	32.663626		Riverine; Unconsolidated Bottom, Sand, Intermittently Flooded, Fresh	0.06	Non-Section 10 Waters
Other Waters (Unvegetated Waters [OHWM])	Nonvegetated Channel	32.668706	-110/0/000	Riverine; Unconsolidated Bottom, Sand, Intermittently Flooded, Fresh	0.33	Non-Section 10 Waters
					TOTAL 0.40 Acre ^a	

^a Jurisdictional waters acreage of the project survey area was determined by utilizing ArcGIS. All acreages are rounded to the nearest hundredth if which may account for minor rounding error).

APPENDIX D FLORAL COMPENDIUM

APPENDIX D PLANT SPECIES DOCUMENTED WITIHN AND ADJACENT TO THE PROPOSED LANWEST SOLAR FARM LLC PROJECT AREA¹

Family	Scientific Name	Common Name
Dtoridooo	LEPTOSPORANGIA	TE FERNS
Plendace	ae – Brake Fern Family Cheilanthes clevelandii var. clevelandii	Cleveland's Lip Fern
		Bird's Foot Cliff-Brake
	Pellea mucronata var. mucronata	Rebman's Silverback Fern
	Pentagramma triangularis ssp. rebmanii CONIFER	
Cunressa	ceae – Cypress Family	5
Oupressa	Hesperocyparis stephensonii	Cuyamaca Cypress
	Juniperus californicus	California Juniper
Pinaceae	- Pine Family	Camornia suripei
Tillaccac	Pinus halepensis	Aleppo Pine
	Pinus jeffreyi	Jeffrey/Yellow Pine
	Pinus quadrifolia	Parry Pinyon
	GNETALE:	
Enhedrace	eae – Ephedra Family	<u> </u>
Epricarao	Ephedra californica	California Ephedra
	MAGNOLIIDS-PIP	
Saururace	eae – Lizard's Tail Family	LIVALLO
Oddidiacc	Anemopsis californica	Yerba Mansa
	MONOCOT	
Anavacea	ie – Century Plant Family	0
rigavacca	Hesperoyucca whipplei	Chaparral Candle
	Yucca schidigera	Mohave Yucca
Cynerace	ae – Sedge Family	Worldve Tueca
Сурстасс	Carex praegracilis	Cluster Field Sedge
	Schoenoplectus americanus	Olney's Bulbrush
	Schoenoplectus californicus	California Bulrush
luncacea	e – Rush Family	California Bullusti
Juncacca	Juncus mexicanus	Mexican Rush
	Juncus dubius	Mariposa Rush
	Juncus macrophyllus	Long-Leaf Rush
	Juncus xiphioides	Iris-Leaf Rush
Liliaceae -	- Lily Family	III3-LCai i (asii
Lillaccac	Calochortus concolor	Golden-Bowl Mariposa Lily
	Calochortus splendens	Splendid Mariposa Lily
Poaceae	- Grass Family	Opicifula Mariposa Elly
1 daccac	Aristida purpurea	Three Awn
	Avena barbata*	Slender Wild Oat
	Bromus diandrus*	Ripgut Grass
	Bromus hordeaceus	Soft Chess
	Bromus madritensis ssp. rubens*	Red Brome
	Bromus tectorum*	Cheat grass
	Distichlis spicata	Salf Grass
	Elymus elymoides ssp. brevifolius	Squirreltail
	Elymus glaucus var. virescens	Green-Blue Wildrye
	Elymus hispidus*	Intermediate Wheatgrass
	Elytrigia pontica ssp. pontica	Turkish Wheatgrass
	Festuca myuros*	Rattail Sixweeks Grass
	Festuca myuros Festuca perennis*	Itallian Ryegrass
	Lamarkia aurea*	Golden-Top
		Hare Barley, Mediterranean Barley
	Hordeum marinum ssp. gussoneanum*	
	Hordeum murinum ssp. glaucum*	Glaucous Barley

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Family.	Colontific Name	Common Nama
Family	Scientific Name Melica imperfecta	Common Name Coast Range Melic
	Muhlenbergia asperifolia	Common Scratchgrass
	Muhlenbergia rigens	Muhley Grass
	Poa bulbosa*	Bluegrass
	Poa secunda ssp. secunda	One-Sided Bluegrass
	Polypogon monspeliensis*	Annual Beard Grass
	Schismus barbatus*	Mediterranean Grass
	Sporobilis airoides	Alkali Sacaton
	Stipa cernua	Nodding Needlegrass
	Stipa coronata	Giant Stipa
	Stipa speciosa	Desert Needlegrass
	Vulpia microstachys var. pauciflora	Pacific Fescue
	Vulpia myuros*	Rat-Tail Fescue
	Vulpia octoflora var. hirtella	Tufted Fescue
Themidad	ceae – Brodiaea Family	
····omidat	Dichelostemma capitatum ssp. capitatum	Blue Dicks
	EUDICO	
Adoxacea	ae – Adoxa Family	
	Sambucus nigra ssp. caerulea	Blue Elderberry
Amaranth	naceae – Amaranth Family	=j
,	Amaranthus sp.	White Tumbleweed
	Atriplex canescens var. canescens	Four-wing Saltbush
	Atriplex lentiformis	Big Saltbush
	Bassia hyssopifolia*	Five Hook Bassia
	Chenopodium californicum	California Goosefoot
	Salsola tragus*	Prickly Russian-thistle
Anacardia	aceae –Family	Thoray recording the to
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Rhus ovata	Sugar Bush
	Rhus aromatica (R. trilobata)	Skunkbrush
Apiaceae	-Carrot Family	
	Apiastrum angustifolium	Mock-Parsley
	Apium graveolens*	Common Celery
	Bowlesia incana	American Bowlesia
	Lomatium dasycarpum ssp. dasycarpum	Woolly-Fruit Lomatium
	Tauschia arguta	Southern Tauschia
Apocynac	ceae – Dogbane Family	
	Asclepias fascicularis	Narrow-leaf Milkweed
	Asclepias erosa	Desert Milkweed
Asteracea	ae – Sunflower Family	
	Acourtia microcephala	Sacapellote
	Ambrosia acanthicarpa	Annual Bur-sage
	Ambrosia confertiflora	Weak-Leaf Bur-Sage
	Ambrosia psilostachya	Western Ragweed
	Anisocoma acaulis	Scale-Bud
	Artemisia dracunculus	Tarragon
	Artemisia tridentata ssp. tridentata	Big Sagebrush
	Athysanus pusillus	Dwarf Athysanus
	Baccharis salicifolia	Mule-Fat
	Baccharis sergiloides	Desert Baccharis
	Brickellia californica	California Brickellbush
	Cirsium occidentale var. californicum	California Thistle
	Chaenactis glabriuscula var. glabriuscula	Yellow Pincushion
	Corethrogyne filaginifolia var. filaginifolia	Common Sand-Aster
	Coreopsis californica var. californica	California Coreopsis
	Cirsium scariosum	Meadow Thistle
	Cirsium vulgare	Bull Thistle
	Deinandra floribunda	Tecate Tarplant
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Family	Scientific Name Encelia actoni	Common Name Acton's Encelia
	Ericameria brachylepis	Boundary Goldenbush
	Ericameria cuneata var. spathulata	Wedge-leaf Goldenbush
	Ericameria linearifolia	Interior Goldenbush
	Ericameria pinifolia	Pine Goldenbush
	Erigeron canadensis	Horseweed/Fleabane
	Erigeron foliosus	Leafy Daisy
	Eriophyllum confertiflorum var. confertiflorum	Long-Stem Golden-Yarrow
	Eriophyllum wallacei	Wallace's Woolly Daisy
	Euthamia occidentalis	Western Goldenrod
	Filago californica	California Filago
	Filago gallica*	Narrow-Leaf Filago
	Gnaphalium californicum	California Everlasting
	Gnaphalium palustre	Lowland Cudweed
	Geraea viscida	Sticky Geraea
	Gutierrezia sarothrae	Broom Matchweed
	Hazardia squarrosa var. grindelioides	Southern Sawtooth Goldenbush
	Hedypnois cretica*	Crete Hedypnois
	Hypochaeris glabra*	Smooth Cat's Ear
	Isocoma acradenia	Desert Alkali Goldenbush
	Lactuca serriola*	Prickly Lettuce
	Lasthenia gracilis	Common Goldfields
	Layia glandulosa	White Layia
	Leptosyne californica	California Coreopsis
	Lessingia glandulifera var. glandulifera	Valley Lessingia
	Malacothrix californica	California Dandelion
	Malacothrix clevelandii	Cleveland's Malacothrix
	Matricaria discoidea	Common Pineapple-Weed
	Pseudognaphalium canescens	Everlasting Cudweed
	Senecio californicus	California Butterweed
	Senecio flaccidus var. douglasii	Sand-Wash Butterweed
	Senecio flaccidus var. monoensis	Mono Butterweed
	Sonchus asper ssp. asper*	Prickly Sow-Thistle
	Stephanomeria exigua ssp. exigua	Small Wreath-Plant
	Stephanomeria deanei	Deane's Small Wreath Plant
	Stylocline gnaphalioides	Everlasting Nest-Straw
	Taraxicum officinale*	Common Dandelion
	Tetradymia canescens	Spineless Horsebrush, Spinefree Horsebrush
	Uropappus lindleyi	Silver Puffs
Boraginad	ceae – Borage Family	
	Amsinckia menziesii var. intermedia	Rancher's Fiddleneck
	Cryptantha micrantha ssp. lepida	Purple-Root Cryptantha
	Cryptantha intermedia	Nievitas Cryptantha
	Pectocarya penicillata	Winged Pectocarya
	Pectocarya setosa	Bristly Pectocarya
	Plagiobothrys sp.	Arizona Popcornflower
	Plagiobothrys collinus var. fulvescens	Rough Popcornflower
Brassicac	eae – Mustard Family	
	Athysanus pusillus	Dwarf Athysanus
	Boechera pulchra var. pulchra	Beautiful Rock-Cress
	Caulanthus simulans	Payson's Caulanthus
	Descurainia pinnata ssp. glabra	Western Tansy-Mustard
	Draba sp.	Desert Whitlow
	Erysismum capitatum ssp. capitatum	Western Wallflower
	Guillenia lasiophylla	California Mustard
	Hirshfeldia incana*	Short-Pod Mustard
I.	Lepidium perfoliatum*	Clasping Pepperweed

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Family	Scientific Name	Common Name		
	Lepidium lasiocarpum var. lasiocarpum Sisymbrium altissimum*	Sand Pepperweed Tumble Mustard		
	Sisymbrium irio*	London Rocket		
	Sisymbrium orientale*			
		Hare's-Ear Cabbage Southern Jewelflower		
	Streptanthus campestris			
Contanna	Thysanocarpus laciniatus e – Cactus Family	Notch Fringepod		
Cactacea		Cons Challe		
	Cylindropuntia californica var. parkeri	Cane Cholla		
	Cylindropuntia ganderi var. ganderi	Gander's Cholla		
	Echinocereus englemannii	Englemann's Hedgehog Cactus		
	Opuntia phaeacantha	Desert Prickly-Pear		
0 '6 !!	Opuntia x vaseyi	Mesa Prickly-Pear		
Caprifolia	ceae - Honeysuckle Family			
	Lonicera subspicata var. denudata	Johnston's Honeysuckle		
Caryophy	Ilaceae – Pink Family			
	Herniaria hirsuta var. cinerea*	Grey Herniaria		
	Loeflingia squarrosa var. squarrosa	California Loeflingia		
Convolvu	laceae – Morning-Glory Family			
	Cuscuta cailfornica	Dodder		
Crassulad	ceae – Stonecrop Family			
	Crassula connata	Pygmyweed		
	Dudleya abramsii ssp. ambramsii	Abram's Dudleya		
	Dudleya pulverulenta	Chalk Dudleya		
Cucurbita	ceae – Gourd Family			
	Cucurbita foetidissima	Calabazilla		
	Marah macrocarpus var. marcrocarpus	Wild-Cucumber		
Elatinacea	ae – Waterwort Family			
	Elatine californica	California Waterwort		
Ericaceae	e – Heath Family			
	Arctostaphylos pungens	Point-Leaf Manzanita		
	Arctostaphylos glauca	Big-Berry Manzanita		
	Arctostaphylos glandulosa	Manzanita		
Euphorbia	aceae – Spurge Family			
	Chamaesyce albomarginata	White-Margin Sandmat		
	Chamaesyce polycarpa	Rattlesnake Weed		
	Croton setigerus	Doveweed		
Fabaceae	e – Legume Family			
	Acmispon glaber var. brevialatus	Short-Wing Deerweed		
	Astragalus douglasii var. perstrictus	Jacumba Milkvetch		
	Astragalus didymocarpus var. dispermus	Dwarf Locoweed		
	Lathyrus splendens	Campo Pea		
	Lotus argophyllus var. argophyllus	Silver-Leaf Lotus		
	Lotus heermannii var. heermannii	Heermann's Lotus		
	Lotus strigosus	Strigose Lotus		
	Lupinus albifrons var. albifrons	Silver-Bush Lupine		
	Lupinus bicolor	Minature Lupine		
	Lupinus concinnus	Bajada Lupine		
	Lupinus truncatus	Collar Lupine		
	Medicago polymorpha*	California Burclover		
	Melilotus indicus*	Indian Sweetclover		
	Robinia pseudoacacia*	Black Locust		
	Senegalia greggii (Acacia greggii)	Catclaw Acacia		
	Trifolium gracilentum	Pin-Point Clover		
	Trifolium variegatum	White-Tip Clover		
	Vicia sp.*	Vetch		

Family	Scientific Name	Common Name
Fagaceae	e – Oak Family	
	Quercus ×acutidens	Scrub Oak Hybrid
	(Quercus cornelius-mulleri × engelmannii)	· ·
	Quercus agrifolia var. oxydenia	Interior Coast Live Oak
	Quercus cornelius-mulleri	Muller's Oak
	Quercus palmeri	Palmer's Oak
	Quercus engelmannii	Engelmann Oak
	Quercus palmeri	Palmer's Oak
	Quercus wislizeni var. frutescens	Interior Live Oak
Garryacea	ae – Silk Tassel Family	
	Garrya veatchii	Canyon Silk Tassel
Gentianad	ceae – Gentian Family	
	Zeltnera venustum (Centaureum v.)	Canchalagua
	Swertia parryi	Green Gentian
Geraniace	eae – Geranium Family	
	Erodium cicutarium*	Red-Stem Filaree
	Erodium brachycarpum*	Short-Beak Filaree
Grossular	iaceae – Gooseberry Family	
	Ribes quercetorum	Oak Gooseberry
Heliotropa	aceae – Heliotrope Family	,
	Heliotropium curassavicum	Salt Heliotrope
Hydronhy	Ilaceae – Waterleaf Family	
y u y	Emmenanthe penduliflora var. penduliflora	Whispering Bells
	Eriodictyon trichocalyx var. lanatum	Hairy Yerba Santa
	Eucrypta chrysanthemifolia var. bipinnatifida	Spotted Hideseed
	Nemophila menzeisii var. integrifolia	Small-Flower Baby Blue Eyes
	Phacelia distans	Wild-Heliotrope
	Phacelia imbricata var. patula	Ives's Phacelia
	Phacelia parryi	Parry's Phacelia
	Pholistoma membranaceum	White Fiesta Flower
Lamiasas		Willie Flesia Flower
Lamiacea	e – Mint Family	Harabayad
	Marrubium vulgare*	Horehound
	Monardella liniodes ssp. linoides	Narrow-Leaf Monardella
	Salvia columbariae	Chia
	Stachys ajugoides var. rigida	Hedge-Nettle
	Trichostemma parishii	Mountain Bluecurls
Loasacea	e – Blazing Star Family	
	Mentzelia sp.	Stick-Leaf
Nyctagina	ceae – Four O'Clock Family	
	Mirabilis multiflora var. pubescens	Froebel's Four O'Clock
Onagrace	ae – Evening Primrose Family	
	Camissonia bistorta	California Sun Cup
	Camissonia californica	False-Mustard
	Camissonia confusa x hirtella	San Bernardino/Field Sun Cup
	Camissonia strigulosa	Sandysoil Sun Cup
	Clarkia purpurea ssp. quadrivulnera	Four-Spot Clarkia
	Epilobium canum ssp. latifolium	Zauchineria
	Oenothera californica ssp. californica	California Evening-Primrose
Orobanch	aceae – Broom Rape Family	
	Castilleja subinclusa var. subinclusa	Longleaf Paintbrush
	Castilleja foliolosa	Woolly Indian Paintbrush
	Cordylathus rigidus ssp. setigerus	Dark-Tip Bird's Beak
	Orobanche californica ssp. feudgei	Sagebrush Broom-Rape
Paeoniac	eae – Peony Family	- Sagabraon Broom rape
. acomac	Paeonia californica	California Peony
	r acoma camornica	Odmornia i Corty

F!!	Calantifia Nama	O N
Family	Scientific Name	Common Name
Papavera	ceae – Poppy Family Argemone munita	Prickly Poppy
	Eschscholzia californica	California Poppy
	Platystemon californicus	Cream Cups
Phrymace	eae - Hopseed Family	Cream Cups
1 III yiii ac	Mimulus aurantiacus var. aridus	Jacumba Monkey Flower
	Mimulus brevipes	Slope Semiphore
	Mimulus cardinalis	Scarlet Monkey Flower
	Mimulus guttatus	Seep Monkey Flower
	Mimulus pilosus	Downy Monkey Flower
Plantagin	aceae – Plantain Family	, z z my memey i ieme
	Antirrhimum coulterianum	Coulter's Snapdragon
	Antirrhinum nuttallianum ssp. nutallianum	Nuttall's Snapdragon
	Collinsia concolor	Southern Chinese Houses
	Keckiella ternata var. ternata	Summer Bush Penstemon
	Penstemon centranthifolius	Scarlet Bugler
	Penstemon clevelandii var. clevelandii	Clevelands's Beardtongue
	Penstemon spectabilis var. spectabilis	Showy Penstemon
	Plantago major*	Common Plantain
	Veronica Anagallis-aquatica*	Mexican Purslane
Polemoni	aceae – Phlox Family	
	Eriastrum densiflorum var. elongatum	Chaparral Woolly-Star
	Eriastrum sapphirinum ssp. sapphirinum	Sapphire Woolly-Star
	Gila angelensis	Grassland Gilia
	Gilia capitata ssp. abrotanifolia	Ball Gilia
	Leptosiphon lemmonii	Lemmon's Linanthus
	Leptosiphon parviflorus	Coast Baby-Star
	Leptosiphon pygmaeus ssp. continentalis	Pygmy Linanthus
	Loeseliastrum schottii	Desert Calico
	Linanthus bellus	Desert Beauty
	Navarretia atractyloides	Holly-Leaf Skunkweed
Polygona	ceae – Buckwheat Family	
	Chorizanthe fimbriata ssp. laciniata	Lacinate Spineflower
	Eriogonum davidsonii	Davidson's Buckwheat
	Eriogonum elongatum var. elongatum	Tall Buckwheat
	Eriogonum fasciculatum var. polifolium	Mountain Buckwheat
	Eriogonum gracile var. incultum	Smooth Slender Buckwheat
	Eriogonum thurberi	Thurber's Buckwheat
	Eriogonum wrightii ssp. membranaceum	Foothill Buckwheat
	Pterostegia drymarioides	Granny's Hairnet
	Rumex salicifolius var. denticulatus	Toothed Willow Dock
	Sidotheca trilobata	Three-Lobe Starry Puncturebract
Portulace	ae – Purslane Family	Ded Meide
	Calandrinia ciliata	Red Maids
	Calyptridium monandrum	Common Calyptridium
	Claytonia parviflora ssp. parviflora	Utah's Miner's-Lettuce
Demi	Claytonia perfoliata ssp. perfoliata	Miner's Lettuce
Kanuncu	aceae – Buttercup Family	Denovina Olemetia
	Clematis pauciflora	Ropevine Clematis
Dhama	Delphinium parishii ssp. subglobosum	Desert Larkspur
Knamnad	ceae – Buckthorn Family	Duals Davida
	Ceanothus cuneatus var. cuneatus	Buck Brush
	Ceanothus greggii var. perplexans	Cup-Leaf-Lilac
	Ceanothus leucodermis	Chaparral Whitethorn
	Frangula californica ssp. tomentella	Chanarral Coffacharry
	(= Rhamnus t. ssp. t.)	Chaparral Coffeeberry
	Rhamnus ilicifolia	Holly-Leaf Redberry

Family	Scientific Name	Common Name				
Rosaceae	e – Rose Family					
	Adenostoma fasciculatum	Chamise				
	Adenostoma sparsifolium	Red Shank				
	Cercocarpus betuloides var. betuloides	Birch-Leaf Mountain-Mahogany				
	Heteromeles arbutifolia	Toyon				
	Ivesia saxosa	Rock Cinquefoil				
	Prunus fremontii	Desert Apricot				
	Prunus ilicifolia ssp. ilicifolia	Holly-Leaf Cherry				
Rubiacea	e – Madder or Coffee Family					
	Galium andewsii ssp. andrewsii	Phlox-Leaf Bedstraw				
	Galium angustifolium ssp. angustifolium	Narrow Leaf Bedstraw				
	Galium aparine	Common Bedstraw				
Salicacea	e – Willow Family					
	Populus fremontii ssp. fremontii	Western Cottonwood				
	Salix lasiolepis	Arroyo Willow				
	Salix laevigata	Red Willow				
	Salix exigua	Sandbar Willow				
Scrophula	ariaceae s.s. – Figwort Family					
	Scrophularia californica ssp. floribunda	California Bee Plant				
	Verbascum thapsus*	Common Mullein				
Solanace	ae – Nightshade Family					
	Datura wrightii	Western Jimson Weed				
	Nicotiana clevelandii	Cleveland's Tobacco				
	Physalis hederifolia var. fendleri	Ground Cherry				
	Solanum xantii	Chaparral Nightshade				
Tamarica	ceae –Tamarisk Family					
	Tamarix ramosissima*	Tamarisk, Salt-Cedar				
Urticacea	e –Family	,				
	Hesperocnide tenella	Western Nettle				
	Urtica dioica ssp. holosericea	Hoary Nettle				
Violaceae – Violet Family						
	Viola purpurea ssp. quercetorum	Oak Yellow Violet				
Viscacea	e – Mistletoe Family	,				
	Phoradendron villosum	Oak Mistletoe				
	Phoradendron macrophyllum	Big-Leaf Mistletoe				
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The project area was initially part of a larger survey area that was separated into three separate projects (LanWest Solar Farm LLC, LanEast Solar Farm LLC, and Rugged Solar LLC). LanEast Solar Farm LLC is located adjacent to the Proposed Project (on the eastern boundary of LanWest). Rugged Solar LLC is located directly north of I-8. All three sites were surveyed concurrently. Therefore, this list of plant species represents species detected for all project areas.

Bold = Sensitive species

² Sensitive wildlife species documented from project vicinity during 2011/2012 surveys conducted by AECOM for adjacent projects.

^{* =} Nonnative species

APPENDIX E

SENSITIVE PLANT SPECIES KNOWN OR POTENTIALLY OCCURRING

APPENDIX E SENSITIVE PLANT SPECIES KNOWN OR POTENTIALLY OCCURRING WITHIN THE PROPOSED LANWEST SOLAR FARM LLC PROJECT AREA

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
California androsace Androsace elongata ssp. acuta	None/None/4.2	List D	No	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland. Elevation range 492–3,937 ft.	Low. Species distribution is primarily west of Pine Valley.
Peninsular manzanita Arctostaphylos peninsularis	None/None/None	None	No	Semi- desert chaparral	Moderate. Known from nearby, in SD County, only at In Ko Pah County Park.
Western spleenwort Asplenium vespertinum	None/None/4.2	List D	No	Chaparral, cismontane woodland, coastal scrub. Found on rocky soils. Elevation range 591–3,281 ft.	Not Expected. Project area outside of the known range. Distribution is west of Cuyamaca Rancho State Park and east of the 15 freeway.
Dean's milkvetch Astragalus deanei	None/None/1B.1	List A	Yes	Chaparral, cismontane woodland, coastal scrub, and riparian forest. Elevation range 246–2,280 ft.	Not Expected. Project area outside of known range. Distribution is west of Pine Valley and east of Lakeside. Site also outside of the elevational range for this species.
Jacumba milkvetch Astragalus douglasii var. perstrictus	None/None/1B.2	List A	Yes	Chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, and valley and foothill grassland. Found on rocky soils. Elevation range 2,953–4,495 ft.	Observed.
San Diego milkvetch Astragalus oocarpus	None/None/1B.2	List A	Yes	Openings in chaparral and cismontane woodland. Elevation range 1,000–5,000 ft.	Low. Species distribution is north of Pine Valley and South of Rainbow.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
California ayenia Ayenia compacta	None/None/2.3	List B	No	Mojavean desert scrub, Sonoran desert scrub. Prefers rocky soils. Elevation range 492–3,592 ft.	Not Expected. Distribution is inside of Anza Borrego Desert State Park.
Fremont barberry Berberis fremontii	None/None/3	List C	Yes	Chaparral, Joshua tree woodland, and pinyon and juniper woodland. Found on rocky soils. Elevation range 2,756–6,070 ft.	Moderate. Scattered in areas nearby.
Orcutt's brodiaea Brodiaea orcuttii	None/None/1B.1	List A	Yes	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools. Found on mesic, clay, sometimes serpentine soils. Elevation range 98–5,551 ft.	Moderate. Known from the La Posta area but the majority of the species' distribution is west of the 79 freeway.
Brewer's calandrinia Calandrinia breweri	None/None/4.2	List D	No	Chaparral and coastal scrub. Found on sandy or loamy soils. Disturbed sites and burns. Elevation range 33–4,003 ft.	Not Expected. Majority of the species' distribution is both west and southwest of the Cleveland National Forest.
Dunn's mariposa lily Calochortus dunnii	None/SR/1B.2	List A	Yes	Closed-cone coniferous forest, chaparral, and valley and foothill grassland. Found on gabbroic or metavolcanic, rocky soils. Elevation range 1,247–6,004 ft.	Not Expected. Gabbro endemic. No suitable habitat present on-site. Distribution is both west and southwest of Pine Valley.
Payson's jewelflower Caulanthus simulans	None/None/4.2	List D	Yes	Chaparral and coastal scrub. Sandy and granitic soils. Elevation range 295–7,218 ft.	High. Documented from the vicinity of the project area in 2011.
Parish's chaenactis Chaenactis parishii	None/None/1B.3	List A	Yes	Chaparral. Rocky soils. Elevation range 4,265–8,202 ft.	Moderate. Found in the Laguna Mountains in chamise chaparral. The distribution is west of Cleveland National forest and north of Descanso.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Peninsular spineflower Chorizanthe leptotheca	None/None/4.2	List D	No	Chaparral, coastal scrub, and lower montane coniferous forest. Found on alluvial fan and granitic soils. Elevation range 984–6,234 ft.	Moderate. Known from chamise chaparral approximately 5–10 miles southwest of the project site.
Long-spined Spineflower Chorizanthe polygonoides var. longispina	None/None/1B.2	List A	Yes	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools. Often found on clay soil. Elevation range 98–5,019 ft.	Low. Found in the Laguna Mountains. Distribution is west of Mt. Laguna.
Campo clarkia Clarkia delicata	None/None/1B.2	List A	Yes	Chaparral and cismontane woodland. Often found on gabbroic soils. Elevation range 770–3,280 ft.	Moderate. Species' distribution is on the western side of the Cleveland National Forest, west to Mission Trails Regional Park.
Tecate tarplant Deinandra (Hemizonia) floribunda	None/None/1B.2	List A	Yes	Chaparral and coastal scrub. Elevation range 229–4,002 ft.	Observed.
Cuyamaca larkspur Delphinium hesperium ssp. cuyamacae	None/None/1B.2	List A	Yes	Lower montane coniferous forest, meadows and seeps, and vernal pools. Mesic soils. Elevation range 4,002–5,351 ft.	Low. Species found inside Cuyamaca Rancho State Park and inside Cleveland National Forest.
Oceanblue larkspur Delphinium parishii ssp. subglobosum	None/None/4.3	List D	No	Chaparral, cismontane woodland, pinyon and juniper woodland, and Sonoran desert scrub. Elevation range 1,969–5,906 ft.	Observed.
Mount Laguna aster Dieteria asteroides var. lagunensis	None/SR/2.1	List B	No	Cismontane woodland and lower montane coniferous forest. Elevation range 2,625–7,874 ft.	Not Expected. Species found in the higher parts of the Laguna Mountains. Distribution is inside the Cleveland National Forest on the eastern side.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Laguna Mountains goldenbush Ericameria cuneata var. macrocephala	None/None/1B.3	List A	Yes	Chaparral. Granitic soils. Elevation range 3,920–6,102 ft.	Moderate. Species distribution is inside the Cleveland National Forest on the eastern side, north into Cuyamaca Rancho State Park.
Chocolate lily Fritillaria biflora var. biflora	None/None/CBR	List D	No	Cismontane woodland, valley and foothill grassland, oak and pine scrub, and grasslands. Well-drained soils on open slopes. Elevation <3,937 ft.	Not Expected. Species' distribution is on the very western side of the Cleveland National Forest, west to the coast.
San Jacinto narrow-leaf bedstraw Galium angustifolium ssp. jacinticum	None/None/1B.3	List A	No	Lower montane coniferous forest, semi- desert chaparral, and southern mixed chaparral. Elevation range 4,000–5,500 ft.	High. Species known mostly from Mt. San Jacinto and from three sites in San Diego County: McCain Valley, Laguna Mt., and Volcan Mt. Closely resembles and easily confused with Galium angustifolium ssp. angustifolium.
Sticky geraea Geraea viscida	None/None/2.3	List B	Yes	Chaparral (often in disturbed areas). Elevation range 328–3,937 ft.	Observed.
San Diego gumplant Grindelia hirsutula var. hallii	None/None/None (taxon no longer recognized)	List A	No	Chaparral, lower montane coniferous forest, meadows and seeps, and valley and foothill grassland. Clay soils. Elevation range 607–5,725 ft.	Not Expected. Suitable habitat not present. Preferred soil type absent. Distribution is inside Cleveland National Forest, west to Poway.
Tecate cypress Hesperocyparis (Cupressus, Callitropsis) forbesii	None/None/1B.1	List A	Yes	Closed-cone coniferous forest and chaparral. Clay, gabbroic or metavolcanic soils. Elevation range 262–4,921 ft.	Not Expected. Preferred soil type absent. Distribution is south near Tecate and Otay Mountain. It is also distributed near Descanso and Julian.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Cuyamaca cypress Hesperocyparis stephensonii	None/None/1B.1	List A	Yes	Closed-cone coniferous forest, chaparral, cismontane woodland, and riparian forest. Gabbroic soils. Elevation range 3,395–5,593 ft.	Low. Known from project vicinity. However, it is found naturally occurring on the west slope of Cuyamaca Peak in gabbro soils.
San Jacinto golden-aster Heterotheca sessiflora ssp. sanjacintensis (ssp. fastigiata var. sanjacintensis)	None/None/None	List D	No	Oak woodland, pine forest, and desert washes (rare). Elevation range 328 –7,217 ft.	Not Expected. Species found at Mount San Jacinto and Palomar Mountain
Graceful tarplant Holocarpha virgata ssp. elongata	None/None/4.2	List D	Yes	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation range 197–3,609 ft.	Not Expected. Species primarily found in western San Diego County. Not known from east of Santa Ysabel.
Laguna Mountains alumroot Heuchera brevistaminea	None/None/1B.3	List A	No	Broad-leafed upland forest, chaparral, cismontane woodland, and riparian forest. Rocky soils. Elevation range 4,495–6,561 ft.	Not Expected. Found in the Laguna Mountains on cliff habitats and at higher elevation.
California hulsea Hulsea californica	None/None/1B.3	List A	Yes	Chaparral, lower montane coniferous forest. Found in openings and burned areas. Elevation range 3,002–9,564 ft.	High. Known from vicinity, off of McCain Valley Road in chamise chaparral habitat.
Mexican hulsea Hulsea mexicana	None/None/2.3	List B	Yes	Chaparral. Volcanic, often on burns or disturbed areas. Unknown elevation range.	Low. Known from Table Mountain near Jacumba.
Beautiful hulsea Hulsea vestita ssp. callicarpha	None/None/4.2	List D	Yes	Chaparral, lower montane coniferous forest. Rocky or gravelly, granitic soils. Elevation range 3,001–10,006 ft.	Low. Outside of species' known range. Distribution is north of Lake Henshaw.
Slender-leaved ipomopsis Ipomopsis tenuifolia	None/None/2.3	List B	No	Chaparral, pinyon and juniper woodland, and Sonoran desert scrub. Gravelly or rocky soils. Elevation range 328–3,937 ft.	High. Suitable habitat present. Species' distribution ranges from Boulevard through Anza Borrego Desert State Wilderness and does not go east of In Ko Pa County Park.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Cooper's rush Juncus cooperi	None/None/4.3	List D	No	Meadows and seeps. Mesic, alkaline, or saline soils. Elevation range 0–2,526 ft.	Low. Distribution of this species is just south of Anza Borrego Desert State Wilderness.
Campo pea Lathyrus splendens	None/None/4.3	List D	Yes	Chaparral. Elevation range 656–5,003 ft.	High. Documented from the vicinity of the project area in 2011. Distribution is in the southern part of the County from just south of Jamul to Boulevard.
Ocellated Humboldt lily Lilium humboldtii ssp. ocellatum	None/None/4.2	List D	Yes	Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland. Elevation range 98–5,906 ft.	Moderate. Distribution of this species is north to Fallbrook through Pine Valley and south to Otay County Open Space Preserve.
Desert beauty Linanthus bellus	None/None/2.3	List B	Yes	Chaparral. Sandy soils. Elevation range 3,281–5,493 ft.	Observed.
Orcutt's linanthus Linanthus orcuttii	None/None/1B.3	List A	Yes	Openings in chaparral, lower montane coniferous forest, and pinyon and juniper woodland. Elevation range 3,001–7,037 ft.	Low. Species' distribution is inside Palomar Mountain, south to Cleveland National Forest.
Parish's meadowfoam Limnanthes gracilis ssp. parishii	None/SE/1B.2	List A	Yes	Lower montane coniferous forest, meadows and seeps, and vernal pools. Vernally mesic soils. Elevation range 2,953–6,562 ft.	Not Expected. Species known only from Cuyamaca Rancho State Park.
Pygmy lotus Lotus (Acmispon) haydonii	None/None/1B.3	List A	Yes	Pinyon and juniper woodland and Sonoran desert scrub. Rocky soils. Elevation range 1,706–3,937 ft.	Low. Distribution is scattered throughout Anza Borrego Desert State Wilderness.
Mountain Springs bush lupine Lupinus excubitus var. medius	None/None/1B.3	List A	Yes	Pinyon and juniper woodland and Sonoran desert scrub. Elevation range 1,394–4,494 ft.	Low. Species' distribution is scattered north of Boulevard and Jacumba in Anza Borrego Desert State Wilderness.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Parish's desert thorn Lycium parishii⁴	None/None/2.3	List B	Yes	Coastal scrub and Sonoran desert scrub. Elevation range 1,001–3,281 ft.	Low. Species' distribution is inside Anza Borrego Desert State Wilderness.
Small-flowered microseris Microseris douglasii ssp. platycarpha	None/None/4.2	List D	No	Cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools. Clay soils. Elevation range 49–3,510 ft.	Not Expected. Species' distribution is west of Harbison Canyon and runs all the way to the coast.
Jacumba monkeyflower Mimulus aurantiacus var. aridus (Mimulus aridus)	None/None/4.3	List D	Yes	Chaparral. Rocky soils. Elevation range 2,461–3,609 ft.	High. Documented from the vicinity of the project area in 2011.
Cleveland's bush monkeyflower Mimulus clevelandii	None/None/4.2	List D	Yes	Chaparral, cismontane woodland, and lower montane coniferous forest. Found on gabbroic soils, often in disturbed areas, openings, and rocky areas. Elevation range 2,674–6,562 ft.	Low. Suitable soils (gabbroic) not present on-site.
San Felipe monardella Monardella nana ssp. leptosiphon	None/None/1B.2	List A	Yes	Chaparral and lower montane coniferous forest. Elevation range 3,937–6,085 ft.	Not Expected. Outside of species' known range and more likely to be found at higher elevations.
California spineflower Mucronea californica	None/None/4.2	List D	No	Chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland. Sandy soils. Elevation range 0–4,593 ft.	Moderate. Distribution of this species is largely coastal.
San Jacinto beardtongue Penstemon clevelandii var. connatus	None/None/4.3	List D	No	Chaparral, pinyon and juniper woodland, and Sonoran desert scrub. Rocky soils. Elevation range 1,312–4,921 ft.	Low. Species distributed throughout Anza Borrego Desert State Wilderness.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Thurber's beardtongue Penstemon thurberi	None/None/4.2	List D	No	Chaparral, Joshua tree woodland, pinyon and juniper woodland, and Sonoran desert scrub. Elevation range 1,640–4,003 ft.	Low. Species found in more montane locations. Distribution is throughout Anza Borrego Desert State Wilderness and just to the central west section of Anza Borrego Desert State Wilderness.
Golden-rayed pentachaeta Pentachaeta aurea	None/None/4.2	List D	No	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grassland. 262–6,070 ft.	Moderate. Found in the Laguna Mountains. Species' distribution does not run east of Cleveland National Forest but runs west all the way to the coast.
Chaparral rein orchid Piperia cooperi	None/None/4.2	List D	Yes	Chaparral, cismontane woodland, and valley and foothill grassland. Elevation range 49–5,200 ft.	Not Expected. Species known only from Pine Valley to Cuyamaca Rancho State Park.
Narrow-petaled rein orchid Piperia leptopetala	None/None/4.3	List D	Yes	Cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest. Elevation range 1,247–7,300 ft.	Not Expected. Species known only from Pine Valley to Cuyamaca Rancho State Park.
Fish's milkwort Polygala cornuta var. fishiae	None/None/4.3	List D	No	Chaparral, cismontane woodland, and riparian woodland. Elevation range 328–3,281 ft.	Low. Suitable gabbroic soils not present on-site. Species' distribution runs north to Temecula, south through Pine Valley, and into Otay County Open Space Preserve.
Engelmann oak Quercus engelmannii	None/None/4.2	List D	Yes	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. Elevation range 164–4,265 ft.	Moderate. Known from a nearby location.
Moreno currant Ribes canthariforme	None/None/1B.3	List A	Yes	Chaparral and riparian scrub. Elevation range 1,115–3,937 ft.	Low. Found in more mesic habitat. Distributed throughout Cleveland National Forest and west to Lake Jennings Park.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Coulter's matilija poppy Romneya coulteri	None/None/4.2	List D	No	Chaparral and coastal scrub. Often in burns. Elevation range 66–3,937 ft.	Not Expected. Species distributed throughout Alpine.
Parish's rupertia Rupertia rigida	None/None/4.3	List D	No	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble plain, and valley and foothill grassland. Elevation range 2,297–8,202 ft.	Low. Species' distribution runs north to Palomar Mountain State Park and south to Pine Valley.
Caraway leaved gilia Saltugilia caruifolia (Gilia caruifolia)	None/None/4.3	List D	No	Openings in chaparral and lower montane coniferous forest. Sandy soils. Elevation range 2,755–7,545 ft.	High. Suitable habitat present. Species' distribution runs north to Hwy 79, west to I-15 and east to Cleveland National Forest.
Southern mountain skullcap Scutellaria bolanderi ssp. austromontana	None/None/1B.2	List A	No	Chaparral, cismontane woodland, and lower montane coniferous forest. Elevation range 1,394–6,561 ft.	Low. Species' distribution runs throughout Cleveland National Forest and north to Palomar Mountain.
Desert spike-moss Selaginella eremophila	None/None/2.2	List B	No	Chaparral and Sonoran desert scrub. Gravelly or rocky soils. Elevation range 656–2,952 ft.	Moderate. Species' distribution runs throughout Anza Borrego Desert State Wilderness.
Chaparral ragwort Senecio aphanactis	None/None/2.2	List B	No	Chaparral, cismontane woodland, and coastal scrub. Sometimes alkaline soils. Elevation range 49–2,624 ft.	Not Expected. Species' distribution runs from Jamul to the coast.
Laguna Mountains jewelflower Streptanthus bernardinus	None/None/4.3	List D	No	Chaparral and lower montane coniferous forest. Elevation range 2,198–8,202 ft.	Low. Species' distribution runs from Mt. Laguna through Cuyamaca Rancho State Park and southwest into Otay County Open Space Preserve.
Southern jewelflower Streptanthus campestris	None/None/1B.3	List A	No	Chaparral, lower montane coniferous forest, and pinyon and juniper woodland. Rocky soils. Elevation range 2,953–7,546 ft.	High. Documented from a nearby location.

Species	Status ¹ (Federal/State/ CNPS)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
San Bernardino aster Symphyotrichum defoliatum	None/None/1B.2	None	No	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic). Near ditches, streams, and springs. Elevation range 7–6,693 ft.	Low. Distributed throughout Cleveland National Forest and throughout Cuyamaca Rancho State Park.
Parry's tetrococcus Tetracoccus dioicus	None/None/1B.2	List A	No	Chaparral and coastal scrub. Elevation range 541–3,281 ft.	Not Expected. Suitable gabbroic or metavolcanic soils not present onsite.
Velvety false lupine Thermopsis californica var. semota	None/None/1B.2	List A	Yes	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland. Elevation range 3,281–6,135 ft.	Low. Found in montane meadows, distributed from Palomar Mountain to Cleveland National Forest.
San Diego sunflower Viguiera (Bahiopsis) laciniata	None/None/4.2	List D	No	Chaparral and coastal scrub. Elevation range 196–2,460 ft.	Not Expected. Project area outside species' known elevational and distributional range. Species distributed west of Jamul.
Rush-like bristleweed Xanthisma junceum	None/None/4.3	List D	Yes	Chaparral and coastal scrub. Elevation range 787–3,281 ft.	Moderate. Species distributed throughout Cleveland National Forest and runs north to Hidden Meadows.

¹Status Codes:

Federal Status
FE = Federally listed endangered
FT = Federally listed threatened

State Status

State listed endangered

State listed threatened

SR State listed rare

CNPS Status

- 1B: Considered rare, threatened, or endangered in California and elsewhere
- 2: Plants rare, threatened, or endangered in California, but more common elsewhere
- 3: Plants for which we need more information review list
- 4: Plants of limited distribution a watch list

CBR: Considered but rejected

Decimal notations: .1 - Seriously endangered in California, .2 - Fairly endangered in California, .3 - Not very endangered in California

County of San Diego Status

- List A: Plants rare, threatened or endangered in California and elsewhere
- List B: Plants rare, threatened or endangered in California but more common elsewhere
- List C: Plants which may be rare, but need more information to determine true rarity status
- List D: Plants of limited distribution and are uncommon, but not presently rare or endangered

² The draft East County Multiple Species Conservation Plan (MSCP) has not yet been approved. Therefore, the list of species proposed for coverage under this plan is subject to changes.

APPENDIX F WILDLIFE COMPENDIUM

APPENDIX F WILDLIFE SPECIES DOCUMENTED WITHIN AND ADJACENT TO THE PROPOSED LANWEST SOLAR FARM LLC PROJECT AREA¹

Scientific Name	Common Name	Evidence of Occurrence
INVERTEBRATES	<u> </u>	•
Order Lepidoptera (Moths and Butterflies)		
Family Arctiidae		
Kodiosoma fulva	n/a	Observed
Family Noctuidae	<u> </u>	
Autographa californica	Alfalfa looper	Observed
Drasteria divergens	n/a	Observed
Drasteria edwardsii	n/a	Observed
Drasteria pallescens	Madera Canyon moth	Observed
Drasteria tejonica	n/a	Observed
Heliothis belladona	n/a	Observed
Schinia amarylis	n/a	Observed
Family Crambidae		
Chrismania pictipennalis	n/a	Observed
Loxostege immerens	n/a	Observed
Family Sphingidae	100	0.0001.100
Euproserpinus phaeton	Primrose sphinx moth	Observed
Family Erebidae	1 minose opinix mour	Obcerved
Litocola sexsignata	Litocala moth	Observed
Family Nymphalidae	Litocala motii	Obscived
Euphydryas chalcedona	Henne's checkerspot	Observed
Chlosyne gabbii	Gabb's checkerspot	Observed
Junonia coenia	Common buckeye	Observed
Vanessa annabella	West coast lady	Observed
Vanessa atalanta	Red admiral	Observed
Vanessa atalanta Vanessa cardui	Painted lady	Observed
Vanessa sp.	•	Observed
Family Pieridae	Lady sp.	Observed
	Caring white	Observed
Pontia sisymbrii Pontia protodice	Spring white Common white	Observed Observed
,		Observed
Anthocharis sara	Sara orangetip	
Euchloe hyantis	Desert pearly marble	Observed
Colias eurytheme	Orange sulphur	Observed
Colias harfordii	Harford's sulphur	Observed
Colias philodice	Clouded sulphur	Observed
Nathalis iole	Dainty sulphur	Observed
Family Papilionidae	Dilinia di 12	
Papilio eurymedon	Pale swallowtail	Observed
Family Riodiniade	I Bulleto model	
Apodemia mormo	Behr's metalmark	Observed
Family Lycaenidae		1 0:
Celastrina ladon	Spring azure	Observed
Brephidium exile	Western pygmy blue	Observed
Glaucopsyche lygdamus	Southern blue/Silvery blue	Observed
Icaria acmon	Acmon blue	Observed
Philotes sonorensis	Sonoran blue	Observed
Everes amyntula	Western-tailed blue	Observed

	Onlaw (iffin Name)	0	Evidence of
	Scientific Name	Common Name	Occurrence
	Callophrys augustinus	Brown elfin	Observed
Го	Callophrys perplexa	Perplexing green hairstreak	Observed
	mily Hesperiidae	Casham	Observed
	Atalopedes campestris	Sachem	Observed
	Erynnis funeralis	Funereal duskywing	Observed
	Erynnis tristis	Sad duskywing	Observed
	Erynnis propertius	Propertius duskywing	Observed
	Erynnis brizo	Sleepy duskywing	Observed
	Erynnis sp.	Duskywing sp.	Observed
	Pyrgus communis	Checkered skipper	Observed
	Heliopetes ericetorum	Northern white skipper	Observed
	Hesperia juba	Juba skipper	Observed
	Polites sabuleti	Sandhill skipper	Observed
	Philosora catullus	Common sootywing	Observed
REPTILES			
	ata (Lizards and Snakes)		
Fai	mily Phrynosomatidae		
	Phrynosoma coronatum blainvillii	Coast horned lizard	Observed
	Sceloporus orcutti	Granite spiny lizard	Observed
Fai	mily Teiidae		
	Aspidoscelis hyperythrus beldingi ²	Belding's orange-throated whiptail	Observed
	Cnemidophorus tigris	Coastal western whiptail	Observed
BIRDS			
Order Ciconii	formes (Herons, Storks, Ibises, and Relative	s)	
Fa	mily Ardeidae		
	Butorides virescens ²	Green heron	Observed
Fa	mily Cathartidae		
	Cathartes aura ²	Turkey vulture	Observed
Order Falcon	iformes (Diurnal Birds of Prey)	·	•
Fai	mily Accipitridae		
	Accipiter cooperii ²	Cooper's hawk	Observed
	Buteo jamaicensis	Red-tailed hawk	Observed
	Buteo swainsoni ²	Swainson's hawk	Observed
	Circus cyaneus	Northern harrier	Observed
Fa	mily Falconidae		
	Falco mexicanus ²	Prairie falcon	Observed
Order Strigifo			1 = = = = = = = = = = = = = = = = = = =
	mily Strigidae		
	Bubo virginianus	Great horned owl	Observed
	rmes (Magapodes, Curassows, Pheasants, ar		00001100
	mily Odontophoridae		
1 a	Callipepla californica	California quail	Observed
Order Charac	driiformes (Shorebirds, Gulls, and Relatives)	T Camorina quan	1 00001700
	mily Charadriidae		
ı a	Charadrius vociferus	Killdeer	Observed
Order Columb	biformes (Pigeons and Doves)	MildGel	I Observed
	·		
	mily Columbidae	Mayraing days	Ob a = = := :
	Zenaida macroura	Mourning dove	Observed
	Streptopelia decaocto	Eurasian collared-dove	Observed

Scientific Name	Common Name	Evidence of Occurrence
Order Cuculiformes (Cuckoos and Relatives)		7 0000
Family Cuculidae		
Geococcyx californianus	Greater roadrunner	Observed
Order Piciformes (Woodpeckers)		
Family Picidae		
Melanerpes formicivorus	Acorn woodpecker	Observed
Colaptes auratus	Northern flicker	Observed
Order Passeriformes (Song birds)	-	<u>'</u>
Family Tyrannidae		
Sayornis saya	Say's phoebe	Observed
Tyrannus verticalis	Western kingbird	Observed
Family Corvidae	Jan a	
Corvus corax	Common raven	Observed
Aphelocoma californica	Western scrub jay	Observed
Family Laniidae		0.000,100
Lanius Iudovicianus ²	Loggerhead shrike	Observed
Family Paridae	33	2,500,700
Baeolophus inornatus	Oak titmouse	Observed
Family Hirundinidae	Can damodoc	Obocived
Petrocheliodon pyrrhonota	Cliff swallow	Observed
Stelgidopteryx serripennis	Northern rough-winged swallow	Observed
Family Aegithalidae	Horatelli Todgii Wiligod ewallew	Obderved
Psaltriparus minimus	Bushtit	Observed
Family Troglodytidae	Buoniti	Obocived
Catherpes mexicanus	Canyon wren	Observed
Thryomanes bewickii	Bewick's wren	Observed
Troglodytes aedon	House wren	Observed
Family Alaudidae	TIOGOG WIGH	C DOC! VCG
Eremophila alpestris ²	Horned lark	Observed
Family Sylviidae	Tiomod lank	Obderved
Polioptila melanura	Black-tailed gnatcatcher	Observed
Polioptila caerulea obscura	Blue-gray gnatcatcher	Observed
Family Turdidae	Blue gray gridicaterier	Obscived
Sialia mexicana	Western bluebird	Observed
Family Timaliidae	Western blueblid	Obscived
Chamaea fasciata	Wrentit	Observed
Family Regulidae	WIGHT	Observed
Regulus calendula	Ruby-crowned kinglet	Observed
Family Mimidae	Nuby-crowned kinglet	Observed
Mimus polyglottos	Northern mockingbird	Observed
Family Sturnidae	Northern mockingbild	Observed
Sturnus vularis	European starling	Observed
Family Parulidae	Luiopean stailing	Observed
Dendroica coronata	Yellow-rumped warbler	Observed
Vermivora ruficapilla	Nashville warbler	Observed
Vermivora runcapina Vermivora celata	Orange-crowned warbler	Observed
Dendroica petechia ²	Yellow warbler	
·	reliow warpier	Observed
Family Emberizidae Amphispiza belli²	Doll'o como anorro	Observed
	Bell's sage sparrow	Observed
Amphispiza bilineata	Black-throated sparrow	Observed
Spizella breweri	Brewer's sparrow	Observed

Scientific Name	Common Name	Evidence of Occurrence
Pipilo crissalis	California towhee	Observed
Pipilo maculates	Spotted towhee	Observed
Junco hyemalis	Dark-eyed junco	Observed
Chondestes grammacus	Lark sparrow	Observed
Zonotrichia leucophrys	White-crowned sparrow	Observed
Family Icteridae		
Euphagus cyanocephalus	Brewer's blackbird	Observed
Agelaius tricolor ²	Tricolored blackbird	Observed
Icterus bullockii	Bullock's oriole	Observed
Sturnella neglecta	Western meadowlark	Observed
Family Fringillidae		
Carpodacus mexicanus	House finch	Observed
Carduelis psaltria	Lesser goldfinch	Observed
Spinus lawrencei	Lawrence's goldfinch	Observed
MAMMALS		
Order Lagomorpha (Rabbits, Hares, and Pikas)		
Family Leporidae		
Sylvilagus audubonii	Audubon's cottontail	Observed
Lepus californica bennettii	San Diego black-tailed jackrabbit	Observed, Scat
Order Rodentia (Rodents)	<u> </u>	•
Family Muridae		
Neotoma sp.	Woodrat sp.	Nest
Order Carnivora (Carnivores)		
Family Felidae		
Lynx rufus	Bobcat	Scat
Puma concolor	Mountain lion	Scat
Order Artiodactyla (Even-toed Ungulates)		
Family Cervidae		
Odocoileus hemionus fuliginata	Southern mule deer	Tracks

¹ The project area was initially part of a larger survey area that was separated into three separate projects (LanWest Solar Farm LLC, LanEast Solar Farm LLC, and Rugged Solar LLC). LanEast Solar Farm LLC is located adjacent to the Proposed Project (on the eastern boundary of LanWest). Rugged Solar LLC is located directly north of I-8. All three sites were surveyed concurrently. Therefore, this list of wildlife species represents species detected for all project areas.

Bold = Sensitive Species

² Sensitive wildlife species documented from project vicinity during 2011/2012 surveys conducted by AECOM for adjacent projects.

APPENDIX G

SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING

APPENDIX G SENSITIVE WILDLIFE SPECIES KNOWN OR POTENTIALLY OCCURRING WITHIN THE PROPOSED LANWEST SOLAR FARM LLC PROJECT AREA

Species	Status ¹ (Federal/State)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Invertebrates					
Monarch butterfly Danaus plexippus	None/SA	Group 2	No	Found in conifer forests, grasslands, old fields, dune habitat, scrublands, chaparral, orchards, woodlands, and herbaceous and shrub wetlands. Breeds in patches of milkweed.	High. Suitable wildflower field, scrub, and chaparral habitats present onsite.
Quino checkerspot butterfly Euphydryas editha quino	FE/None	Group 1	Yes	Occurs in association with a variety of vegetation communities including clay soil meadows, open grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodlands, and semi-desert scrub. Also associated with clay soils that possess cryptogamic crusts and vernal pools.	Low. Quino was not detected during 2011 focused surveys. Although two small populations of dark-tip bird's beak were found in the Quino survey area, the low abundance and late emergence of this species and the absence of dotseed plantain, Coulter's snapdragon, and southern Chinese houses substantially diminish the potential of host resources to support a Quino population in the project area.
Reptiles		•	•		
Belding's orange-throated whiptail Aspidoscelis hyperythrus beldingi	None/SSC	Group 2	Yes	Most often associated with sparsely vegetated patches of coastal sage scrub and chamise chaparral	High. Documented from the vicinity of the project area in 2011. Suitable open scrub and chaparral habitats present onsite.
Coastal western whiptail Aspidoscelis tigris stejnegeri	None/SA	Group 2	No	Often associated with dense vegetation such as chaparral and sage scrub especially in and around sandy washes and streambeds.	Observed. Documented from the northern portion of the site within semi-desert chaparral and big sagebrush scrub habitats.

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San Diego ringneck snake Diadophis punctatus similis	None/SA	Group 2	No	Found in moist habitats including wet meadows, rocky hillsides, gardens, chaparral, mixed coniferous forests, and woodlands.	High. Suitable chaparral and woodland habitat with rock outcroppings present on-site.
Coast horned lizard Phrynosoma coronatum blainvillii	None/SSC	Group 2	Yes	Chaparral, coastal sage scrub with fine, loose soil. Partially dependent on harvester ants for forage.	Observed. Documented on an access road within semi-desert chaparral.
Southern sagebrush lizard Sceloporus graciosus vandenburgianus	None/None	Group 2	No	Variety of habitats from sagebrush and chaparral to open fir forests. Prefers open areas with scattered low bushes.	Not expected. Species found at higher elevations (4,500–9,600 ft).
<u>Birds</u>					
Cooper's hawk Accipiter cooperi	None/WL	Group 1	No	Mature forest, open woodlands, wood edges, river groves. Parks and residential areas.	High. Documented from the vicinity of the project area in 2011. Oak woodland habitat on-site provides suitable habitat.
Sharp-shinned hawk Accipiter striatus	None/WL	Group 1	No	Inhabits woodlands with a certain amount of dense cover, but this species can be localized and scattered through relatively open country.	Moderate. Potentially suitable foraging habitat present. Species does not breed in San Diego County; considered an uncommon winter visitor.
Tricolored blackbird Agelaius tricolor	None/SSC	Group 1	Yes	Nests in large, dense colonies in freshwater marsh or willow scrub vegetation in proximity to freshwater and forages in agricultural areas, lakeshores, and damp lawns.	High. Documented from the vicinity of the project area in 2011. Wildflower field on-site provides suitable foraging habitat.
Bell's sage sparrow Amphispiza belli belli	None/WL	Group 1	Yes	Open chaparral and sage scrub habitats.	High. Documented from the vicinity of the project area in 2011. Scrub and chaparral habitat on-site provides suitable breeding and foraging habitat.

Species	Status ¹ (Federal/State)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Golden eagle Aquila chrysaetos	BGEPA/FP,WL	Group 1	Yes	Nests on cliffs, in boulders or in large trees. Foraging habitat includes grassland, open chaparral, and coastal sage scrub.	High. Although suitable nesting habitat is not present, there is high potential for the species to use the project area for foraging. Wildflower field, big sagebrush scrub, and semi-desert chaparral provides suitable foraging habitat.
Red-shouldered hawk Buteo lineatus	None/None	Group 1	No	Riparian woodlands, oak woodlands, eucalyptus groves. Constructs stick nests high in trees – sycamores, coast live oaks, eucalyptus, and fan palms.	Moderate. Potentially suitable habitat is not abundant on-site.
Swainson's hawk Buteo swainsoni	None/ST	Group 1	Yes	Inhabits a wide variety of open habitats, ranging from prairie to shrub steppe to desert and intensive agricultural systems. Nest within riparian forest or in remnant riparian trees and forages in agricultural lands (such as fallow fields and alfalfa fields).	High. Documented from the vicinity of the project area in 2011. Potential to use site as stopoverr habitat during migration. However, species not known to nest or winter in San Diego County.
Green heron Butorides striatus	None/None	Group 2	No	Nests solitarily typically in riparian woodlands and marshes.	Not expected. Suitable riparian woodland and marsh nesting and foraging habitat not present on-site.
Turkey vulture Cathartes aura	None/None	Group 1	Yes	Forages over open country, especially within a few miles of rocky or wooded areas. Rocky outcroppings, cliffs, and dry forests provide nesting sites.	High. Suitable open foraging habitat present on-site. Suitable nesting habitat not available on-site.
Northern harrier Circus cyaneus hudsonius	None/SSC	Group 1	Yes	Nests on the ground at the edge of marshes, but will also nest on grasslands, in fields, or in areas of sparse shrubs. Foraging habitat includes grasslands, agricultural fields, and coastal marshes.	High. Documented from the vicinity of the project area in 2011. Expected as a winter visitor in grassland habitat within near vicinity of project area. Breeding on-site not likely.

Species	Status ¹ (Federal/State)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Yellow warbler Dendroica petechia	None/SSC	Group 2	Yes	Found in mature riparian woodlands that consist of cottonwood, willow, alder, and ash trees. It is restricted to this increasingly patchy habitat.	High. Documented from the vicinity of the project area in 2011. Suitable breeding habitat present within vicinity of project area. Expected to use site occasionally as foraging/dispersal habitat.
Horned lark Eremophila alpestris actis	None/WL	Group 2	Yes	Coastal strand, arid grasslands, and sandy desert floors. Disturbance enhances habitat.	High. Documented from the vicinity of the project area in 2011. Wildflower field habitat within project area provides suitable nesting and foraging habitat.
Prairie falcon Falco mexicanus	None/WL	Group 1	No	Nests on ledges on cliffs or bluffs. Forages in open desert or grasslands.	High. Documented from the vicinity of the project area in 2011. Wildflower field on-site provides suitable foraging habitat. Nesting habitat not present within project area.
Loggerhead shrike <i>Lanius Iudovicianus</i>	None/SSC	Group 1	Yes	Grassland, open sage scrub and chaparral, and desert scrub.	High. Documented from the vicinity of the project area in 2011. Scrub and chaparral habitats on-site provides suitable nesting and foraging habitat.
California gull (nonbreeding) Larus californicus	None/WL	Group 2	No	Marine habitats, lakes, marshes.	Not expected. There are no bodies of water or landfills to host this species on-site. A migrant could pass over the site, but it is unlikely that it would stop.
Lewis' woodpecker (winter) Melanerpes lewis	None/SA	Group 1	No	Found primarily in oak woodlands and riparian areas with large cottonwoods.	Moderate. Potentially suitable foraging and roosting habitats present. Breeding is not expected as this species is only found in San Diego County during migration and winter.
Mountain quail Oreortyx pictus eremophila	None/None	Group 2	No	Dense chaparral in foothills and mountains.	Low. Habitat typically used by this species is not present. However, mountain quail are found within the vicinity of the project area.

Species	Status ¹ (Federal/State)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Purple martin Progne subis	None/SSC	Group 1	Yes	Open woodlands. Most abundant in mesic regions, near large wetlands and other water bodies, and at upper slopes and ridges. Distribution and abundance are most consistently determined by nest-site availability.	Not expected. Habitat typical for supporting this species is not present on-site. Individuals could be detected during migration, but there is low potential for that.
Western bluebird Sialia mexicana	None/None	Group 2	No	Open woodland or edge habitat with exposed perches and fairly sparse ground cover.	High. Oak woodlands and wildflower field on-site provides suitable nesting and foraging habitat.
<u>Mammals</u>					
Pallid bat Antrozous pallidus	None/SSC	Group 2	Yes	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect them from high temperatures.	Moderate. Potentially suitable foraging and roosting habitat (rock outcrops and oaks) present.
Ringtail Bassariscus astutus	None/FP	Group 2	Yes	Various riparian habitats and in forest and shrub habitats. Den sites include boulders and hollows of trees.	Moderate. Usually not found more than 0.6 mile from permanent water. Nearest permanent water source approximately 1.05 miles from project area (Tule Lake). Suitable den sites present (rock outcrops and oak woodland).
Northwestern San Diego pocket mouse Chaetodipus fallax fallax	None/SSC	Group 2	No	Occurs in coastal sage scrub, chaparral, and grassland habitat.	High. Suitable habitat present and within species range.
Townsend's big-eared bat Corynorhinus townsendii	None/SSC	Group 2	Yes	Forages in forest and woodland habitats or along habitat edges within 15 km of roost sites. Roosts in caves.	Moderate. Potentially suitable foraging habitat present. However, numbers in CA (especially San Diego County) have declined steeply.
Greater western mastiff bat Eumops perotis californicus	None/SSC	Group 2	No	Inhabits arid and semiarid, rocky canyons where it roosts in crevices and shallow caves on the sides of cliffs and rock walls. Also known to inhabit coastal scrub, grasslands, and chaparral.	Moderate. Potentially suitable roosting and foraging habitat present.

Species	Status ¹ (Federal/State)	County of San Diego Listing ¹	Proposed for Coverage Under Draft East County MSCP (yes/no) ²	Primary Habitat Associations	Potential for Occurrence/Comments
Mountain lion Puma concolor	/	Group 2	No	Many habitats. Most abundant in riparian and brushy habitats, in areas where mule deer (their primary food source) are present.	Observed. Mountain lion scat was observed in the northern portion of the project area, along the edge of a sandy wash.
Western red bat Lasiurus blossevillii	None/SSC	Group 2	No	Feeds over grasslands, shrublands, open woodlands, forests, and croplands. Roosts primarily in trees and at times, shrubs, often in edge habitats along streams, fields, or urban areas.	Moderate. Potentially suitable foraging and roosting habitat present.
San Diego black-tailed jackrabbit Lepus californicus bennettii	None/SSC	Group 2	Yes	Open areas of scrub, grasslands, and agricultural fields.	Observed. Individuals and scat observed throughout project area.
Small-footed myotis Myotis ciliolabrum	None/SA	Group 2	No	Inhabits short grass prairies, riparian areas and coniferous forests.	Moderate. Potentially suitable foraging and roosting habitat present.
Long-eared myotis Myotis evotis	None/SA	Group 2	No	Found in all brush, woodland, and forest habitats. Prefers coniferous woodlands and forests. Nursery colonies in buildings, crevices, spaces under bark and snags. Caves used primarily as night roosts.	Moderate. Potentially suitable foraging and roosting habitat present.
Fringed myotis Myotis thysanodes	None/SA	Group 2	No	Occurs in a wide range of habitats, from desert scrub to high elevation conifer forest. Roosts in caves, mines, or buildings.	Moderate. Potentially suitable foraging habitat present.
Long-legged myotis Myotis volans	None/SA	Group 2	No	Found primarily in coniferous montane forests. Most common in woodland and forest habitats above 4,000 ft. Uncommon in desert and arid grassland habitats.	Not expected. Suitable habitat not present and the project area is below elevational range of species.
Yuma myotis Myotis yumanensis	None/SA	Group 2	No	Open forests and woodlands with water sources. Forages over water and roosts in caves, mines, buildings, or crevasses.	Moderate. Potentially suitable foraging habitat present.

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Southern mule deer Odocoileus hemionus fuliginata	None/None	Group 2	No	Occupies almost all types of habitat within its range. Prefers arid, open areas and rocky hillsides.	Observed. Mule deer tracks were observed in the northwestern portion of the project area, along a small trail in semi-desert chaparral.
American badger Taxidea taxus	None/SSC	Group 2	Yes	Coastal sage scrub, mixed chaparral, grassland, oak woodland, chamise chaparral, mixed conifer, pinyon-juniper, desert scrub, desert wash, montane meadow, open areas, and sandy soils.	Moderate. Potentially suitable habitat present. However, the species has experienced large population declines in southern California.

¹Status Codes:

Federal Status

FE = Federally listed endangered

FT = Federally listed threatened

BGEPA = Bald and Golden Eagle Protection Act

State Status

SE = State listed endangered

ST = State listed threatened

FP = State fully protected species

SSC = State species of special concern

SA = State special animal WL = State watch list

County of San Diego Status

Group 1 = Animals with a high level of sensitivity, either because they are threatened or endangered or because they have very specific natural history requirements that must be met.

Group 2 = Animals which are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.

² The draft East County Multiple Species Conservation Plan (MSCP) has not yet been approved. Therefore, the list of species proposed for coverage under this plan is subject to changes.